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THE AMERICAN ELEVATOR AND GRAIN TRADE

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Established 1882

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Mitchell Brothers Publishing Co.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

One Dollar Per Annum
SINGLE COPIES, 15 CENTS

VOL. XLIV

431 South Dearborn Street, Chicago, Ill., September 15, 1925

NO. 3

Of Course

We want your business but we want it on a basis that will pay you as well as ourselves. We want it because we have proper facilities for handling it.

Don't be satisfied with slow returns or poor service; send your shipments to

McKENNA & DICKEY GRAIN

60 Board of Trade
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GRAIN DRIERS
FEED MIXERS
FEEDERS
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cause the loss of many hard earned dollars to shippers of grain and seed.

MUCH OF THIS LOSS can be saved by the use of Kennedy Car Liners. These car liners practically condition a bad order car and enable shippers to load cars that otherwise would be rejected.

KENNEDY SYSTEM of car liners prevents leakage in transit and are made for all cases of bad order cars, consisting of full Standard Liners, End Liners and Door Liners.

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"THE CLIMAX" SCOOP TRUCK

CAPACITY { 200 Lbs. Coal
2 1/2 Bushels Grain

Can easily add Twenty-Five cents an Hour to the value of a man's time who uses it in unloading Coal or Grain from box cars. Hence, in two weeks' use the Scoop-Truck will pay for itself and cost you nothing for its use thereafter. It will last for years and save the wearing out of a dozen common scoops in doing a like amount of work. Hundreds have tried it and will certify to the truth of these statements. Why not order now and let the Scoop-Truck be giving itself to you!

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We specialize in steel for grain elevator construction work.

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HAMILTON RUBBER
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Mezzanine Lounge—Muehlebach Hotel

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Adjoining Convention Hall

For Grain Men Attending
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October 12, 13, 14, 1925

LAMSON BROS. & CO.

1874

CHICAGO, ILL.

1925

Kansas City Office on the Second Floor of the new Board of Trade Building

MUEHLEBACH HOTEL

Convention Headquarters

**Meeting of Grain Dealers
National Association**

Kansas City Mo., October 12-13-14, 1925

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**CONVENTION SESSIONS HELD ON
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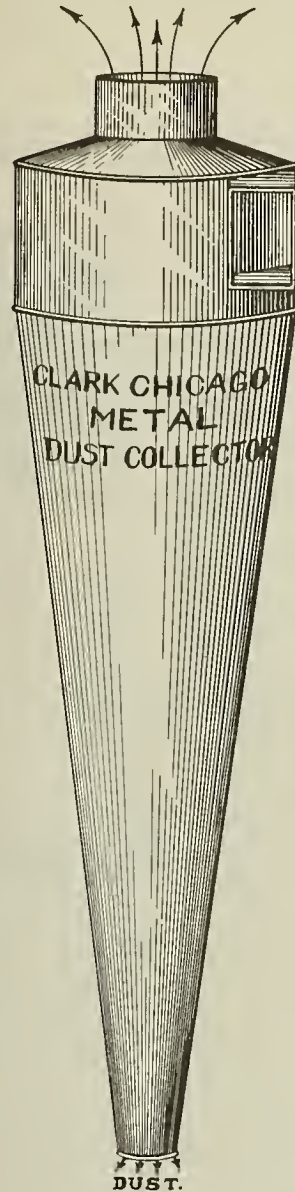
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Over 3,000 on Cereal Dust.

For Efficient Collection of Dust in Grain Elevators and Cereal Plants—

Special Design for recovery of fine Dust. Also Pneumatic Conveying and Sweeping Systems---Results Guaranteed.

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**COLD WEATHER FIRES
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**MAKE YOUR HEATING EQUIPMENT
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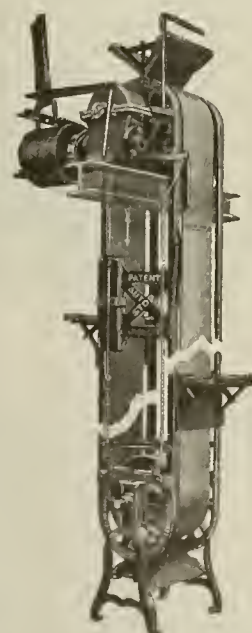
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ALL belt elevators give valuable service. But the thing which has made the Humphrey Elevator the world's standard is its continued efficiency of operation year after year. The Humphrey's service records in hundreds of leading mills throughout the world stand as proof of the statement.

This reputation for efficiency and long service is the result of 38 years' experience in elevator building. A few features are:

Driving mechanism a compact unit running in oil bath; electric silent chain drive; Humphrey Patented Automatic Safety Stop; quick, easy control.

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There Is Only One Genuine Humphrey Elevator

Humphrey Elevator

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Indianapolis—Your Market—A Three Times Greater Grain Market

Indianapolis, the center of grain centers, is known today as one of the most important, rapidly growing grain and hay markets in the country. Receipts of grain during the last ten years have nearly trebled in volume, due to the advantages its geographical location offers to the grain and hay producing and consuming sections of the country, its splendid railroad facilities assuring prompt returns on shipments, its large local consumption of grain by its corn and flour mills and its manufacturing industries, its increased elevator storage and drying equipment, its adequate weighing facilities and efficient inspection department. This has made Indianapolis more and more important each season for shippers and buyers of grain, hay and feed.

Movement of Grain and Hay During the Year 1924

	Receipts	Shipments
Corn	18,013,000 bushels	13,483,000 bushels
Oats	11,744,000 bushels	10,009,000 bushels
Wheat	5,018,000 bushels	2,635,000 bushels
Rye	262,000 bushels	157,600 bushels

The following Receivers and Shippers are members of
Indianapolis Board of Trade

The Cleveland Grain Co.
OPERATING FIVE TERMINAL ELEVATORS
Mighty Good Consignment Service
Ed. K. Shepperd, Manager

JAMES E. BENNETT & CO.
GRAIN, STOCKS, COTTON
MEMBERS
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Cash Grain Shipments Solicited
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H. E. Kinney Grain Co.
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The Bingham Grain Company
Receivers and Shippers of
G R A I N



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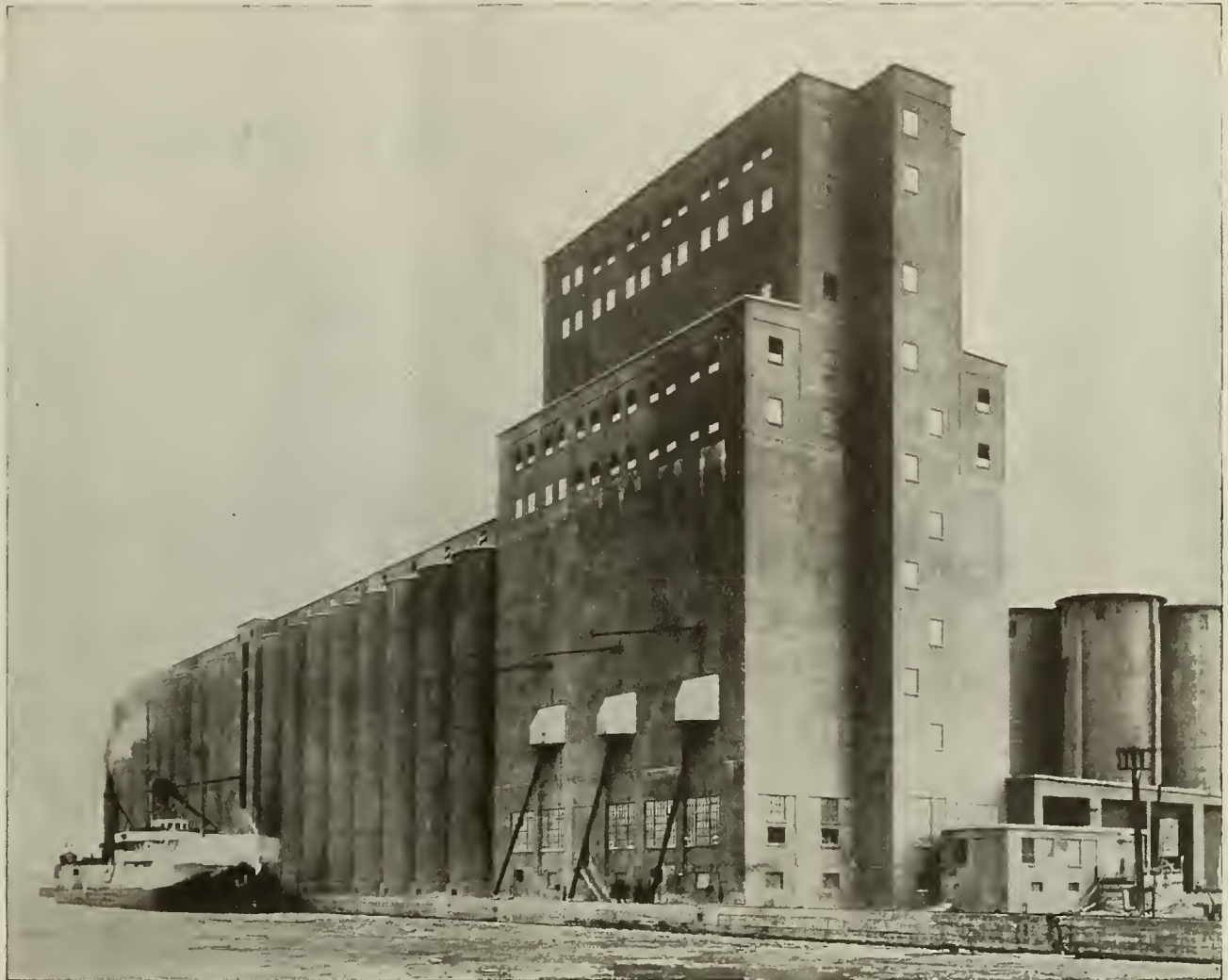
The Better Kind of Grain Handling Machinery



WE MAKE

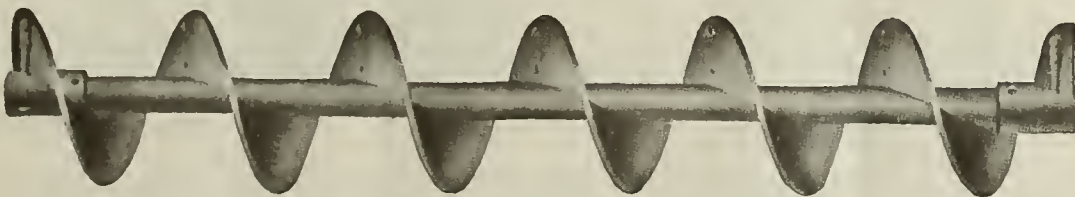
Apron Conveyors
Belt Conveyors
Drag Conveyors
Pan Conveyors
Mixing Conveyors
Spiral Conveyors
Trippers
Bucket Elevators
Elevator Buckets
Elevator Boots
Elevator Casing
Elevator Heads
Sack Elevators
Barrel Elevators
Elevator Spouts
Loading Spouts
Dock Spouts
Chain
Sprockets
Grain Cleaners
Truck Dumps
Wagon Dumps
Truck Hoppers
Power Shovels
Car Pullers
Rope Drives
Gears

Power Transmitting
Machinery



Weller made products are sold on the basis of quality. Installed in your elevator they will help you to operate at full capacity at the lowest cost for upkeep. Frequent shutdowns and waiting for repairs dissipate your profits.

WELLER SPIRAL CONVEYORS



Cold Rolled Steel Sectional Flights. Wear Long. Evenly Balanced. Run True. Interchangeable with All Standard Makes.

We Also Make

Aluminum, Brass, Cast Iron, Copper, Galvanized, Monel Metal and Tinned Spiral and Ribbon Conveyors

Send Us a List of Your Requirements We Will Quote Prices

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Increase the capacity of your Elevator. Perfect discharge at low or high speed. Substantially constructed of heavy sheet steel, riveted at each corner and spot welded on the laps. Reinforced with extra thickness of steel on the back.

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THE GATEWAY TO THE SOUTH AND EAST

Has the "square deal" plugging system for hay.

Has reconsignment and transit privileges and other favorable points which insures most successful handling of grain or hay shipments.



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Is the terminal point for 200,000 miles of railways and therefore a convenient shipping point for the country dealer, and local buyers are enabled to distribute all products quickly and to best advantage. Has weighing and inspection service second to none and up-to-date grain and hay merchants constantly safeguarding their patrons' interests.

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MUTUAL COMMISSION COMPANY, Strictly Commission

THE FITZGERALD BROS. CO., Commission Merchants, Receivers and Shippers of Grain and Hay



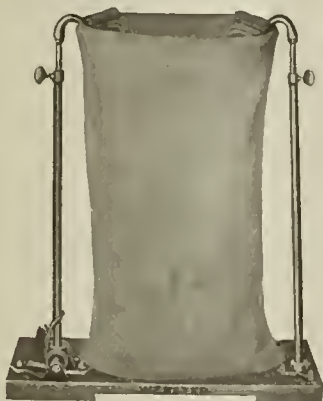
Buffalo Elevator Bucket



Steel Screw Conveyor



Empire Elevator Bucket



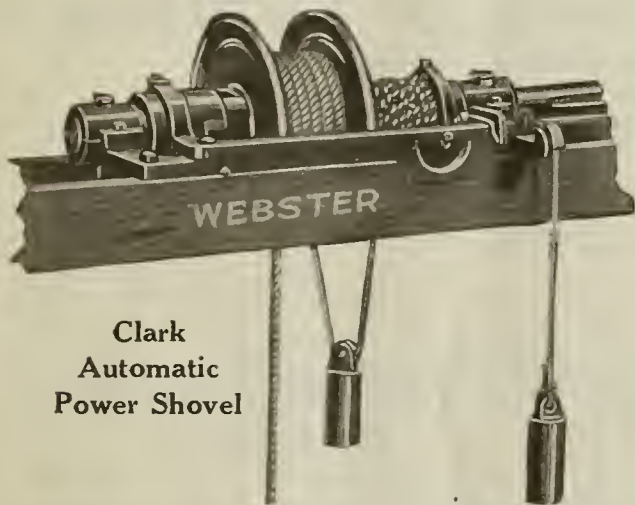
Mosher Bag Holder



Champion Flour Scoop



Elevator Boot



Clark Automatic Power Shovel



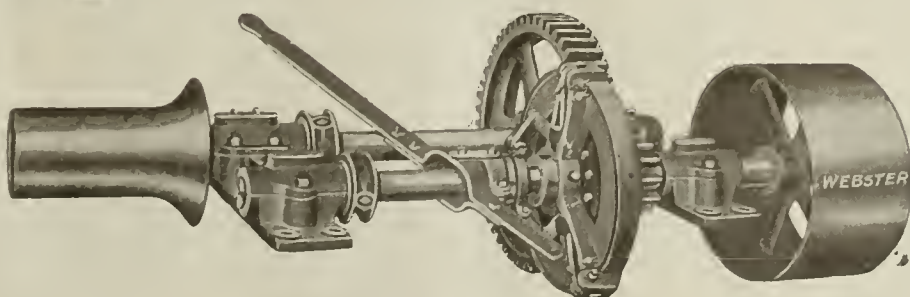
Sprocket Wheel



Hercules Grain Scoop



Salem Elevator Bucket



Car Puller



Minneapolis "V" Elevator Bucket

Webster Grain Handling Equipment

WHETHER your requirements are for elevator buckets, sprockets, chains, bearings, friction clutches, elevator boots, car pullers, grain scoops, power shovels, or complete equipment for handling grain, flour and feed, Webster offers you an opportunity to obtain the best.

Our forty-nine years' experience in designing and manufacturing grain handling equipment has enabled us to produce only that which is recognized as superior.

No matter what your grain handling problem is, Webster equipment, plus our engineering staff, will more than likely lead you out of your difficulties. Catalog showing our complete line of grain handling equipment sent on request.

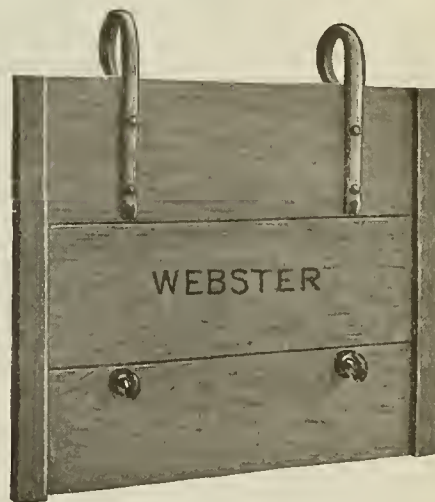
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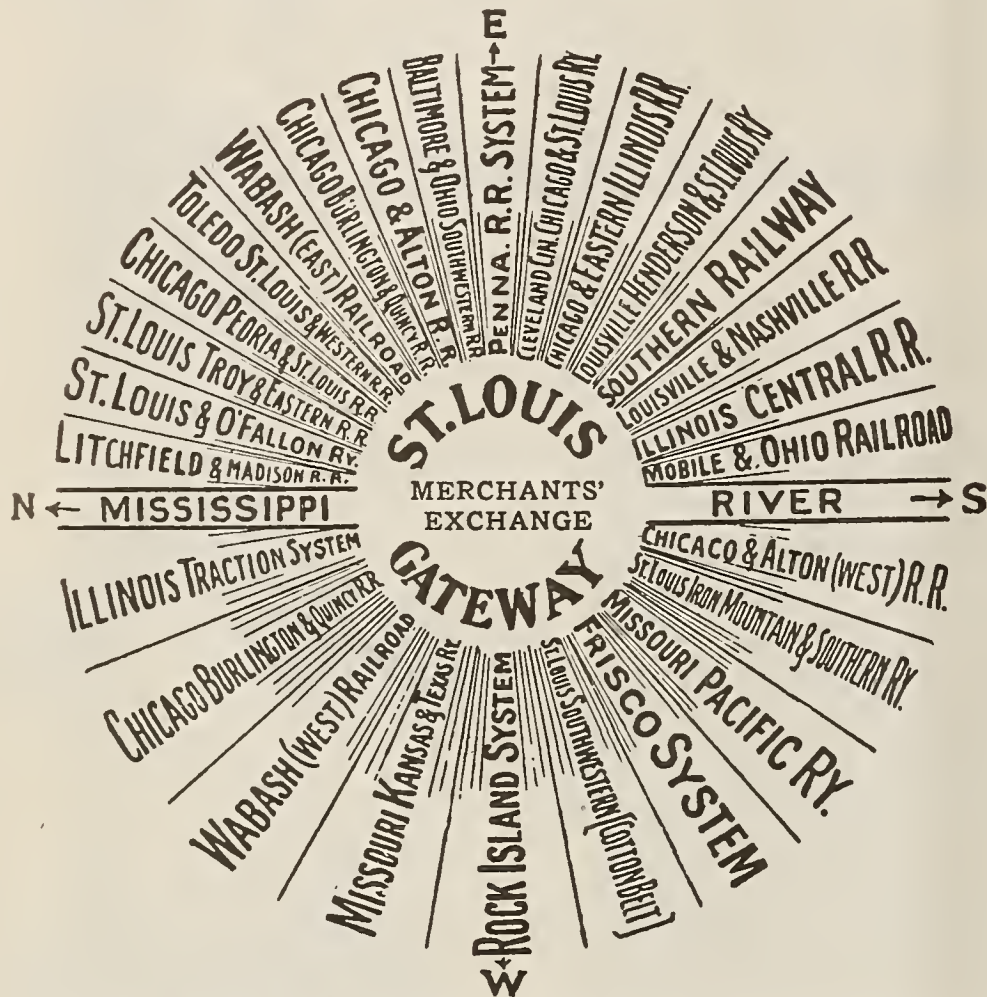


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Power Shovel Scoop

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Within a radius of 25 Miles—Center of Corn Production.
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Primary Grain Markets in the
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Bushels of Grain Received
Annually

Movement of Grain by Barge
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Successors to

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Fastest Growing Commission House in America.

Can handle your consignments in St. Louis and Kansas City.

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**"THE CONSIGNMENT HOUSE
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BUYERS OF TRACK GRAIN OF ALL KINDS AND
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Carefully Selected Milling Wheat and Corn Our
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HANDLED ON COMMISSION
BOUGHT TO ARRIVE
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Come to St. Louis

Best Grades of Soft Winter and Hard Red
Wheat always available. Millers for years
have found the St. Louis Market most satis-
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The Kimbell Milling Company's Elevator at Fort Worth, Texas
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"EUREKA" - "INVINCIBLE" GRAIN CLEANING MACHINERY

European Branch: 64 Mark Lane, London, E.C.3, England.



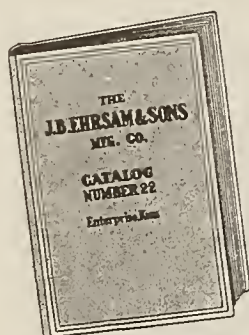
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GRAIN HANDLING & MILLING EQUIPMENT

LARGE STOCKS FOR PROMPT SHIPMENT

WHEN you are in a rush for Grain Handling and Milling Equipment, remember we are here to serve you—and quickly. Large stocks of standard parts always on hand and on special equipment, our service will surprise you.

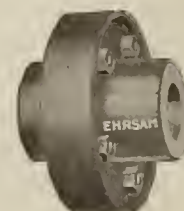
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Every elevator and mill operator should have a copy of this valuable catalog. Besides showing the complete line of “Ehrsam” Grain Handling and Milling Equipment, it also contains data of much value to every operator. We suggest that you write for your copy today.

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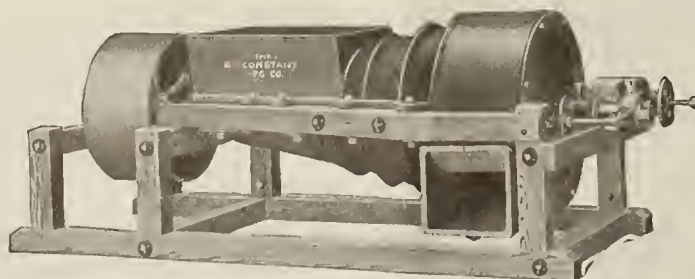


Get Your Grain in—and the Farmer Out—in a Hurry. The Cost Is No More.

Here is your combination for speed and insurance against the costly “Choke-up.”

The U. S. Chain Conveyor and Feeder
The U. S. Pitless Corn Sheller
The U. S. “V” Type Elevator Bucket

We build our chain feeders to deliver the capacity of U. S. sheller which is sufficient endorsement of durability and capability.



The “V” bucket completes a U. S. Sheller installation by giving the increased elevating capacity required. Manufactured in all sizes with dies stamping the bucket at one operation from a single sheet of metal.

Priced accordingly

Statement by Owner

“The U. S. Sheller has devoured everything from cog wheels to 40 feet of drag chain and seems to like it. Leaves the cobs cleaner and in better size than other shellers we are operating.”



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Manchester Ship Canal Elevator
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Capacity 1,500,000 Bushels
Completed 1914



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Capacity 750,000 Bushels
Completed 1920



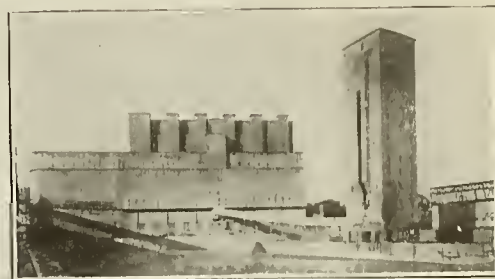
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Chicago & North Western Railway Elevator
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Capacity 2,600,000 Bushels
Completed 1912



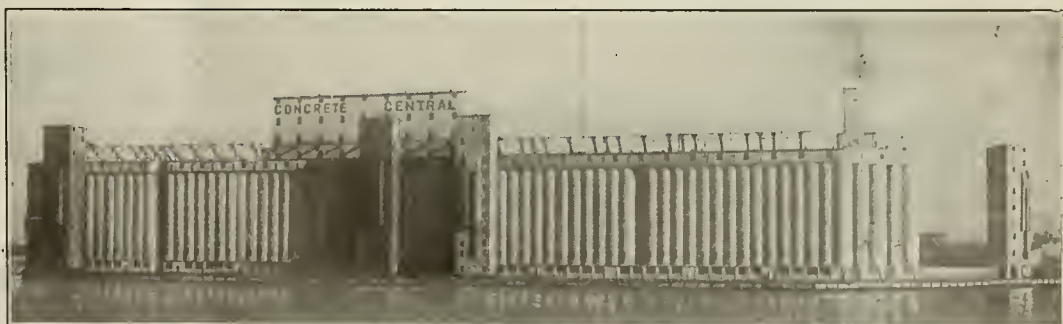
Sydney Terminal Elevator
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Capacity 6,400,000 Bushels
Completed 1921



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and
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Union Nat'l Bank Bldg. 149 California Street C. P. R. Building

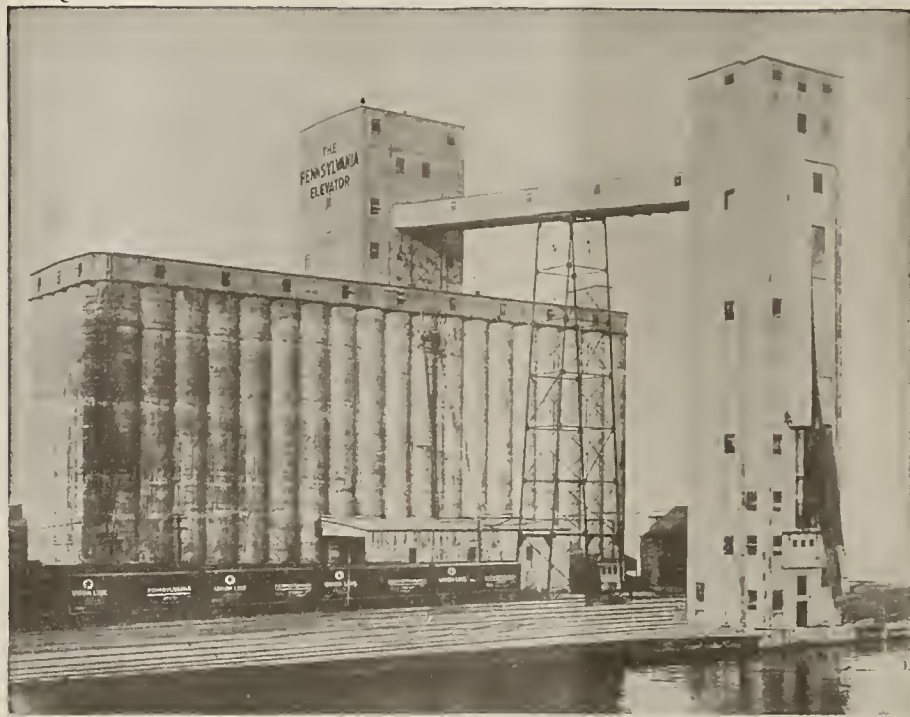
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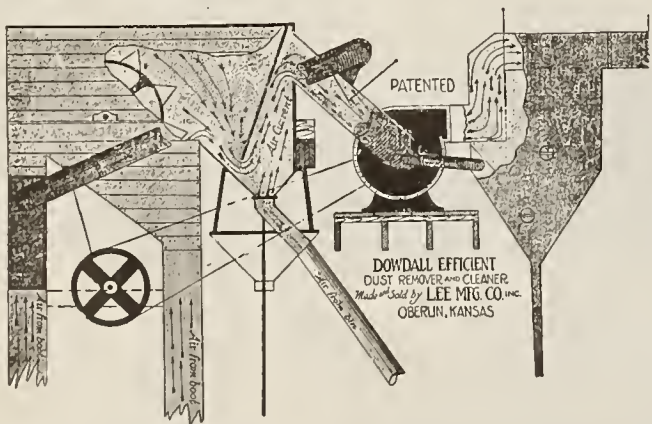
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Tower. Reinforced Concrete. Latest improvements. Write us for
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An Elevator Without Dust Is Possible

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The Dowdall Grain Separators and Dust Removers

Keeps elevator pit and cupola free from dust and even makes
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Equally efficient in country elevator or large terminal house.

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All-steel machines for all kinds of
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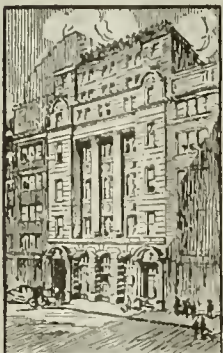
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Complete facilities for financing and collecting documentary export grain and flour bills. ∴ ∴

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about the condition of that grain in your bins?

Let us equip your storage with a

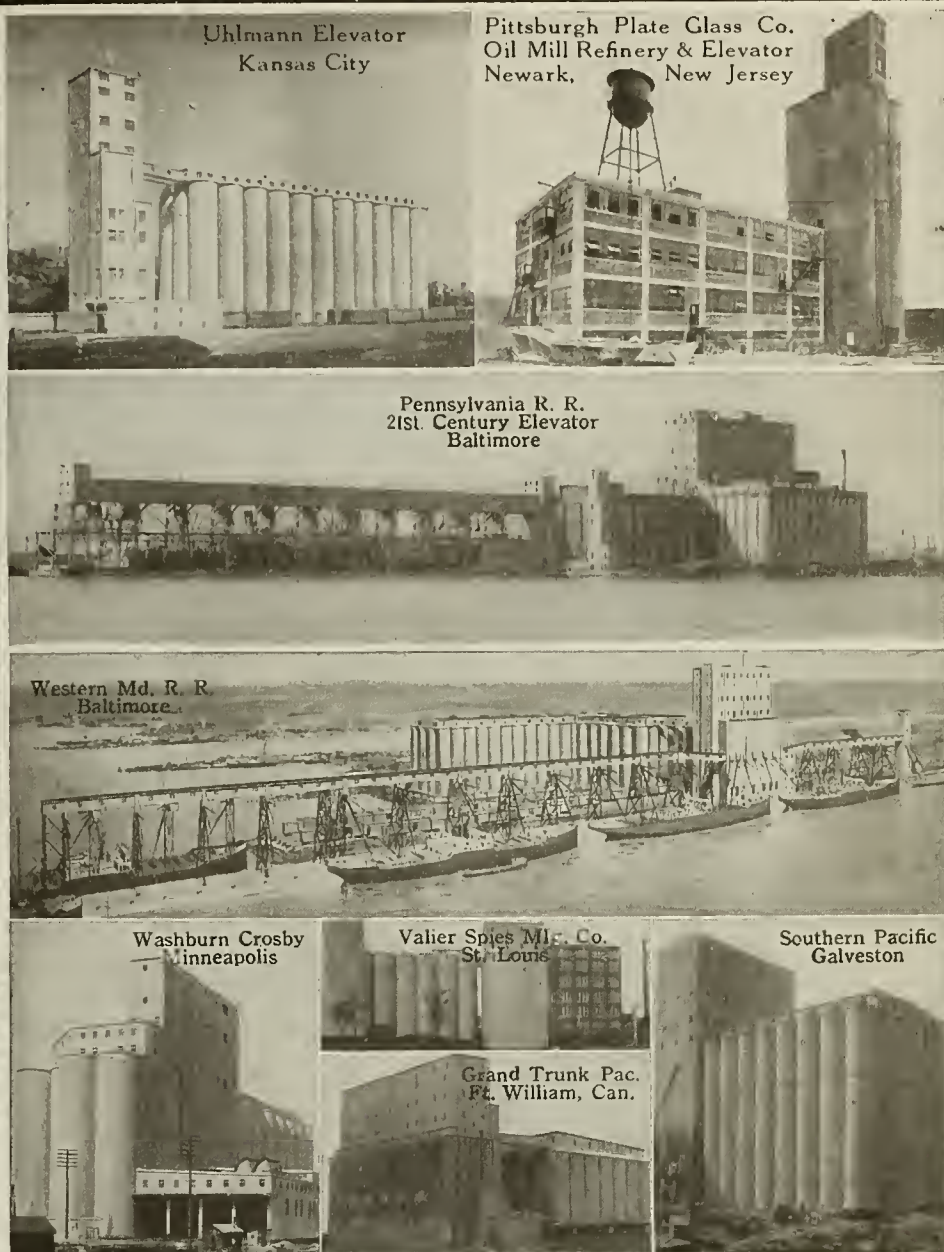
Zeleny Thermometer System

to tell you the exact condition of the grain and cut out the worry

Over 100 Elevators Equipped

Write for Description

WESTERN FIRE APPLIANCE WORKS
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JAMES STEWART & COMPANY, Inc.

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In all parts of the world

Every day in every way we are designing and building better and better Grain Elevators. We have built for many of your friends—Eventually we will build for you. Why not now?

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Terminal Grain Elevator
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Constructed by

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The Long Building
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Engineers and Constructors
Grain Elevator Department



*The Most Efficient Grain Handling
Plant in the World*

Capacity 3,800,000 Bushels

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FEED PLANTS**

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**Furnish Plans, Estimates and Build
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ROPP'S CALCULATOR—Invaluable for grain operators. Tables show at a glance the value of wheat, corn, rye, oats, barley seeds, etc., at all market prices per bushel. Trade discounts, stock tables, capacity tables, short-cut arithmetic. Solves all grain problems with lightning rapidity. Price \$1.00



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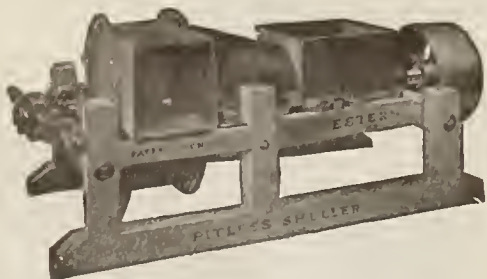
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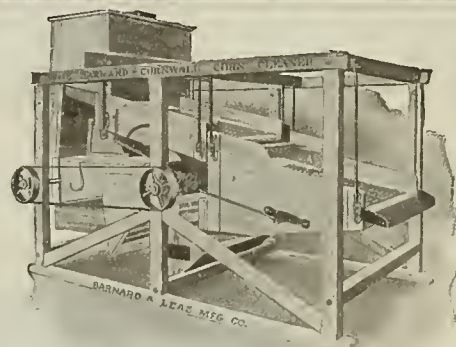
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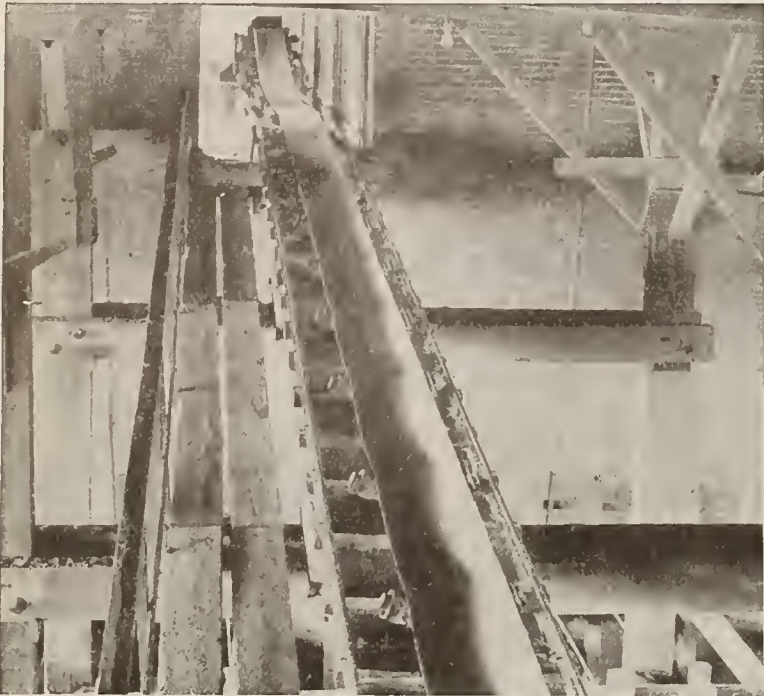
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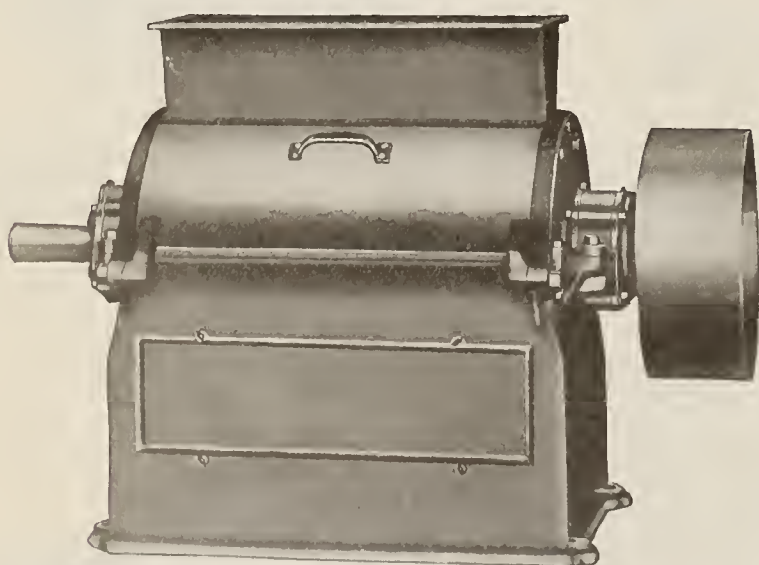
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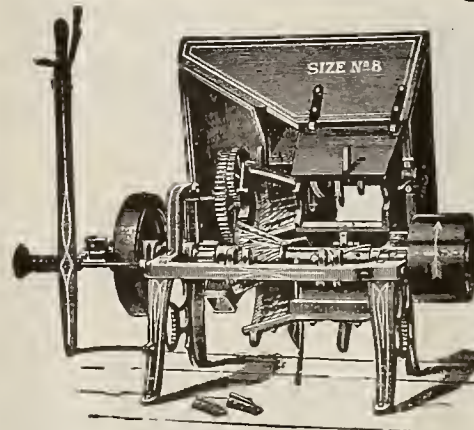
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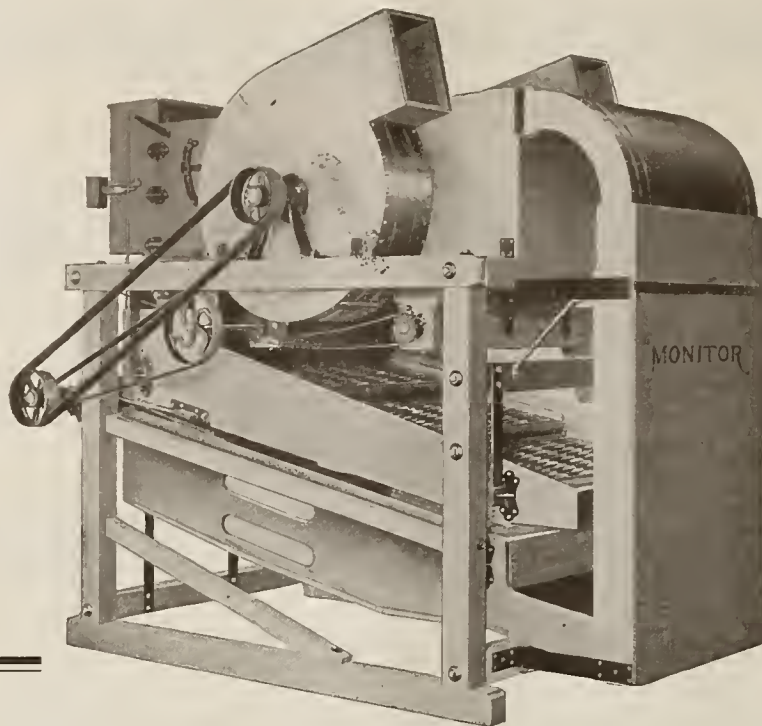
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CHICAGO, ILLINOIS, SEPTEMBER 15, 1925

NO. 3

Large Mill in Southwest Protects Its Wheat Supply

Kansas Flour Mills Company Adds Reinforced Concrete Unit of Half Million Bushels' Capacity to Its North Kansas City, Mo., Mill

MANY factors are involved in the management of a large modern flour mill, and as everyone knows, the control of the available supply of wheat is no mean item. It reduces not only to the familiar problems encountered in securing the right supply of grain, but also the larger phases of marketing. For instance, the tariff has a decided bearing on the available supply of Hard Spring wheat, and northwestern mills grind more than their own states can supply when not supplemented by wheat from Canada. As a result, Hard Winter wheat from the Southwest must be contributed to their supply and with favorable freight rates this becomes a practical policy. Exports take an appreciable amount of the grain too; and the farsighted mill manager must protect his own necessities in the way of raw material.

Kansas mills and those situated in nearby territory, have recognized the imperative nature of the protection of the local wheat supply and have taken energetic measures for some time back. One of the leading mills which has conserved its wheat and built large storage units is the Kansas Flour Mills Company of Kansas City, Mo. In addition to the storage facilities connected with the mill, the company operates a large number of country elevators scattered throughout the Hard Winter wheat belt. These country houses handle a great volume of grain in a commercial way, reserving only the best that comes to them for the use of the milling company.

They serve a valuable function in the selection of superior grain, and also assist by being reserve storage plants holding their milling wheat until it is called for by the company. The Kansas City plant and country mills had an aggregate capacity of over 2,000,000 bushels prior to the erection of their new unit of 500,000 bushels' capacity.

The new unit is 210 feet in length, 42 feet wide and 99 feet high. Being adjacent to the original storage and mill buildings, it is on the Chicago, Burlington & Quincy right of way. It is of reinforced concrete construction and has 20 cylindrical tanks with nine interstice bins, the total capacity being 500,000 bushels. The grain storage at the North Kansas City plant is now 1,000,000 bushels, exclusive of the facilities in the company's country houses.

As in the case of the original unit, electrical current is used for power and lighting, and it is provided by central station service. Sixteen motors

are used, and they provide an aggregate of 297½ horsepower. They were furnished by the Allis-Chalmers Manufacturing Company of Milwaukee, Wis. The Weller Manufacturing Company of Chicago provided five belt conveyors, two of which are above and two below. Two belts are 280 feet and two are 85 feet in length, with a width of 30 inches, while the fifth measures 25 feet by 36 inches.

The new unit has had installed a Howe Hopper Scale, and there is a power shovel for unloading. Among the protective features are included chemical extinguishers and a dust collecting system.

The working house of the original elevator is 42

feet square and 136 feet high from the first floor to the roof. It has a basement with a 20-foot ceiling, occupying the entire area under the working house. On the west side of this working house there is a covered track shed 88 feet long and 38 feet wide and containing two tracks, each having a car dump with a capacity of 2,000 bushels. The dumps are hopped, emptying directly to a 36-inch conveyor belt below, which carries the grain to the receiving leg. The track shed is equipped with a car puller and can move 10 loaded cars at a time. The power is transmitted by a silent chain drive.

The receiving capacity of the newly constructed storage unit is 6,000 bushels per hour and the shipping capacity is the same. There are two cleaners

in this unit and there are receiving separators of the Invincible type.

The company operates 12 flour mills, located at Kansas City, Mo.; North Kansas City, Mo.; Enterprise, Kan.; Great Bend, Kan.; Pratt, Kan.; Kingman, Kan.; Fort Scott, Kan.; Anthony, Kan.; Alva, Okla.; Cherokee, Okla.; Sleepy Eye, Minn.; and La Crosse, Wis. The mill at North Kansas City, with which the new grain storage plant is operated, has a present capacity of 3,000 barrels daily and there is room in the mill building for an additional 3,000 barrels' capacity.

The mill building with which the new elevator unit is operated is an eight-story structure with a full basement, and it measures 204 feet 6 inches in length and 64 feet in width. It has a total height overall, from the foundation slab to the roof, of 137 feet. The original elevator at this plant, to which the present structure is really an annex, had four elevator legs in the house,—a receiving leg and two lofter legs, all of 8,500 bushels per hour capacity, and a screenings leg of 2,000 bushels' capacity.

From a 2,000-bushel hopper scale the grain is distributed in three ways: To a shipping bin; direct to lofter legs, or to the cleaners. The cleaned grain goes to the lofter legs and is then distributed to storage or milling bins. Two 30-inch belt conveyors with trippers carry the grain through a gallery over the storage bins and similar belts in the basement bring it out of storage for use in the mill, and it is readily sent to just where it is needed for use in the milling process.

The original elevator had two storage annexes. Annex "A" on the north side of the workhouse has a capacity of about 150,000 bushels; and Annex "B", on the south side of the workhouse has a capacity of 208,000 bushels. Under both annexes is a basement nine feet high.



CONCRETE ELEVATOR OF THE KANSAS FLOUR MILLS COMPANY, NORTH KANSAS CITY, MO.

feet square and 136 feet high from the first floor to the roof. It has a basement with a 20-foot ceiling, occupying the entire area under the working house. On the west side of this working house there is a covered track shed 88 feet long and 38 feet wide and containing two tracks, each having a car dump with a capacity of 2,000 bushels. The dumps are hopped, emptying directly to a 36-inch conveyor belt below, which carries the grain to the receiving leg. The track shed is equipped with a car puller and can move 10 loaded cars at a time. The power is transmitted by a silent chain drive.

The original storage unit, like the new one referred to above, is of reinforced concrete construc-

CHICAGO ELEVATORS
DESTROYED BY FIRE

Fire was discovered shortly before dawn on August 26 and resulted in the destruction of three grain elevators belonging to the Union Grain Elevator Company, located at Sixteenth Street and the river, Chicago. Loss was estimated at \$200,000. The property has recently been under the control of the Grain Marketing Company, prior to their cessation of business.

Fifty fire engines and all available fire apparatus were assembled under the direction of Chief Seyferlich of the Chicago fire department, and he directed operations in person. High winds carried embers from the tall structures long distances, and a nearby warehouse was ignited, though the flames were extinguished before much damage was done to adjoining property. Several barges and fire boats were nearly swamped when the east wall of one of the buildings collapsed into the river. Most of the engines, as well as fire boats, were obliged to use the river water, because of the shortage of hydrants in the vicinity.

Guy Olsen, a watchman employed by a nearby warehouse, discovered the fire, when tongues of red flame were seen licking from the roof of one of the buildings. He turned in the first alarm. The elevators were practically empty, which reduced

thieves' is typical. The grain exchange, approved by the Government and operating under strict governmental supervision, has been declared by the United States Supreme Court to be sound in principle and operation, and to be performing a highly valuable public service. To meet such commendable qualifications farm organizers of the Barrett type would have to revise their methods. Some of these men have from time to time attacked established institutions in an effort to gain public notice. That, obviously, was the purpose behind Barrett's utterly false statement."

SHOWS BENEFITS OF FEDERAL
WAREHOUSE ACT

"Ohio and Kentucky warehousemen and grain growers will likely evidence increased interest in the provisions of the United States Warehouse Act" said Robert Waldie, warehouse examiner of the United States Department of Agriculture, during his visit to Cincinnati in August. "Recent failures of unlicensed warehousemen in various parts of the United States resulting in huge losses to farmers and banks are causing banks to very carefully scrutinize warehouse receipts offered them as collateral for loans," said Mr. Waldie.

The splendid new concrete elevator operated by

First, to encourage the farmer to store these products so that he would avoid the terrific losses sustained each year through lack of proper storage of harvested crops. Another purpose was to create a uniform system of warehousing through the country for agricultural products. But the most important consideration was to get a form of warehouse receipts that would possess real loan value.

This last purpose, it was thought, could be accomplished by providing a system of licensing warehousemen and having Government supervision of their operation. The law does not put the Government into business. The Government does not build warehouses under the Act. It merely supervises them. The Government plans to improve practices in warehousing in light of the experience of the Department of Agriculture and sound business principles, and to develop uniform conditions throughout the country.

Only public warehousemen with proper resources and who are able to give sufficient bond will be licensed. The Department of Agriculture has inaugurated a system of inspection for all licensed warehouses providing for a complete examination by Federal warehouse examiners three or four times a year. This plan is similar to examinations under the National Banking Act. The law is not mandatory, it rests with each warehouseman to choose whether or not he shall become licensed.

WHEAT OUTLOOK FOR 1926

Winter wheat production in the United States next year will be considerably in excess of probable domestic requirements if reported intentions of farmers to increase acreage some 4,000,000 acres above last year are carried out and average yields are secured, the Department of Agriculture points out in its report released on September 3.

This situation would place Winter wheat on a world market basis. The fact that our market is now on approximately a domestic basis is considered largely to have brought about the present favorable market position of wheat producers.

The Winter wheat area sown this fall will be in the neighborhood of 46,400,000 acres, if farmers carry out the intended increase of 9.7 per cent. Allowing for average abandonment, the area to be harvested next summer would be about 40,424,000 acres compared with 32,813,000 acres harvested this year.

Should the yield be the same as this year, 12.7 bushels per acre, the lowest since 1904, the crop would reach 513,000,000 or 23 per cent more wheat than was harvested this year. A crop of 586,000,000 bushels or about 40 per cent more than this year would be produced should the yield per acre equal the average of the past 10 years, which was 14.5 bushels.

The Spring wheat crop has averaged 253,000,000 bushels in the past five years, which added to 586,000,000 bushels of Winter wheat would make a total of 839,000,000 bushels. This would produce an exportable surplus of from 160,000,000 to 240,000,000 bushels in the face of an upward trend in world production.

European countries have been gradually expanding wheat areas to the point that the area in 19 European countries is now 92 per cent of the estimated prewar average. The wheat areas in Australia, Argentina, and Canada have also been increased, so that the wheat acreage in these three countries combined is now about 53 per cent above the pre-war average.

Farmers, in planning their planting, the Department says, should consider not only the outlook for total wheat crop but also the outlook for the class of wheat produced. In recent years the United States has consumed for feed, seed, and in mill grindings, approximately 230,000,000 bushels of Soft Red Winter, 200,000,000 bushels of Hard Red Winter and about 50,000,000 bushels of White wheat, in addition to practically all the Hard Red Spring wheat produced. The experience of the past few years indicates that these quantities of these classes can be disposed of within the United States without competing in foreign markets.



THE UNION GRAIN ELEVATOR, CHICAGO, IN FLAMES

the loss to the mere value of the demolished buildings. A brick chimney rising 150 feet remained upright after the adjacent walls had fallen, presenting a problem for the firemen.

The fire was very spectacular. Great billows of smoke rose from the buildings and these were illuminated by the flames below. This formed a bright torch of enormous proportions and could be seen for many miles round about. Despite the early morning hour hundreds of motorists rushed to the scene and found spots of vantage on the nearby viaduct to watch the scene. No casualties were reported to the police, although several of the firemen were slightly burned as they were struck by flying embers.

ANSWERS ATTACK ON MARKET-
ING METHODS

Edwin A. Doern, director of the Chicago Board of Trade has characterized as "utterly false" certain statements accredited to C. S. Barrett of the National Farmers' Union in an address made before a convention at DuQuoin, Ill. He said, "Many of these self-appointed farm leaders have grown rich in periods of unrest by simply inflaming the farmer against railroads, banks, Wall Street, commodities markets and other commercial institutions. Indeed such attacks upon honest business are the life blood of the organizer. Only the embittered farmer will contribute liberally to the support of those professionals who give naught but misinformation and golden promises in return.

"Barrett's recent talk in which he was quoted as referring to the grain exchange as 'a bunch of

the Fairmount Elevators, Inc., of Cincinnati, and the warehouse operated by the Weideman Company across the river in Newport, Ky., which are operating under the United States Warehouse Act for the storage of grain, were examined the past few days by Mr. Waldie. Declaring that growers have heretofore been very careless in selecting depositories for their products, Mr. Waldie pointed out some of the advantages of the Federal Warehouse Act.

"Two very important provisions of the Federal law are that no receipts shall be issued except for products stored in the warehouse at the time of the issuance thereof and that a warehouseman shall not deliver agricultural products for which he has issued a negotiable receipt until the receipt has been returned to him and cancelled," he said. "Moreover, a warehouseman operating under the Federal Act who issues or utters a false or fraudulent receipt or any person who shall convert to his own use or use for purposes of securing a loan or remove from a licensed warehouse any agricultural products stored in such a warehouse for which a licensed receipt has been issued is guilty of a misdemeanor and may be fined \$10,000 and imprisoned."

Bankers throughout the country are becoming more and more interested in this piece of legislation owing to the safeguard surrounding receipts issued under the Act. As an example, the recent ruling of the Federal Reserve Bank of St. Louis, which now refuses to discount paper supported with warehouse receipts not issued under the authority of the Federal law.

The Warehouse Act was passed by Congress in the hope that it would accomplish several purposes.

Why Specify Concrete for Elevators?

Do the Advantages of Concrete Tanks in Large Terminal Plants Also Hold Good for the Small Elevator?

By ALLAN R. SMITH*

WHEN concrete for elevator construction is taken for granted by so many building engineers and grain dealers today, it may seem needless to set forth in systematic form the value of concrete for tank units. However, there are always those dealers who hesitate, when it comes right down to specifications, between ordering their work done in concrete, or in some compromise material which they figure will save them a few dollars on the original cost. It is for dealers in that frame of mind for which the following facts are put forth.



A COUNTRY ELEVATOR OF CONCRETE

Concrete construction makes water-tight buildings and in grain storage bins, tanks and elevators this is, of course, essential. Fireproofness in every modern conception of the word is contained in concrete construction. With the use of this material, insurance on the building can be eliminated.

The cost of a fire is distributed among many by insurance, yet one person always bears the greatest burden of the expense. Although reimbursed in a fair measure for his loss, the grain dealer who has suffered a fire in his plant loses in other ways. The fire may have occurred when the grain shipping business was at its height; customers are forced to go elsewhere with their grain with the result that they may never return as the dealer's patrons. This loss of patronage, loss of profits, and loss of grain and building, even though insured, many times is not recovered for years.

Another feature of the concrete grain elevator is its permanence. Rapid depreciation of timber has made it possible to fix the probable life of wood elevators not to exceed 20 years. There is no knowing how long a concrete elevator, properly built, will last. Concrete construction, well done, is probably justly called permanent, yet for the purpose of comparison let us assume that it will not last forever because the growing demands of business very often cause a structure to become unsuited to its needs. This would call for replacement, so that for the sake of convenience, it is well to fix a limit on the life of a concrete struc-

*Allan R. Smith speaks from the viewpoint of one within the Portland Cement Association, so his is not a disinterested account of cement advantages, but the case he builds for concrete is logical and decidedly worth the attention of dealers now contemplating the construction of new tanks.

ture if for no other purpose than to compare the cost with that of a wooden one.

From all points of view, a concrete elevator will last at least 50 years without replacement. Depreciation is nothing; maintenance is nothing; while in 20 years a wooden plant will require a sum equal to its first cost for upkeep. Yet the difference in cost between a concrete and wooden structure is not great. Local conditions govern this in most instances. Increasing cost of large timbers, such as are used in mill and elevator construction, has made concrete in many instances a formidable competitor and successful rival of timber, with all the advantages of permanence, fireproofness, low maintenance, etc., in its favor. When local conditions are right, very often a concrete elevator can be erected at the same or less cost than a similar plant of wood.

Not least among the advantages of a concrete structure is that it is ratproof. Depredations by rodents cause a large loss in this country each year and building them out with concrete adds materially to profits.

There is a strong similarity between the modern monolithic silo and the circular storage bin. The development of many successful circular forms for concrete construction has made the circular grain bin a popular one. These are easily built in batteries of any desired number and when properly designed, the spaces between furnish additional storage. Every foot of ground area is utilized for storage, minus the wall thickness.

There are, of course, engineering problems that must be solved in connection with every concrete structure. Wall pressure in grain tanks due to stored contents resembles pressure exerted by water in similar tanks. So bins and elevators must be designed with sufficient reinforcing steel embedded in the concrete to offset the pressure of contents. The amount of this naturally depends upon, the

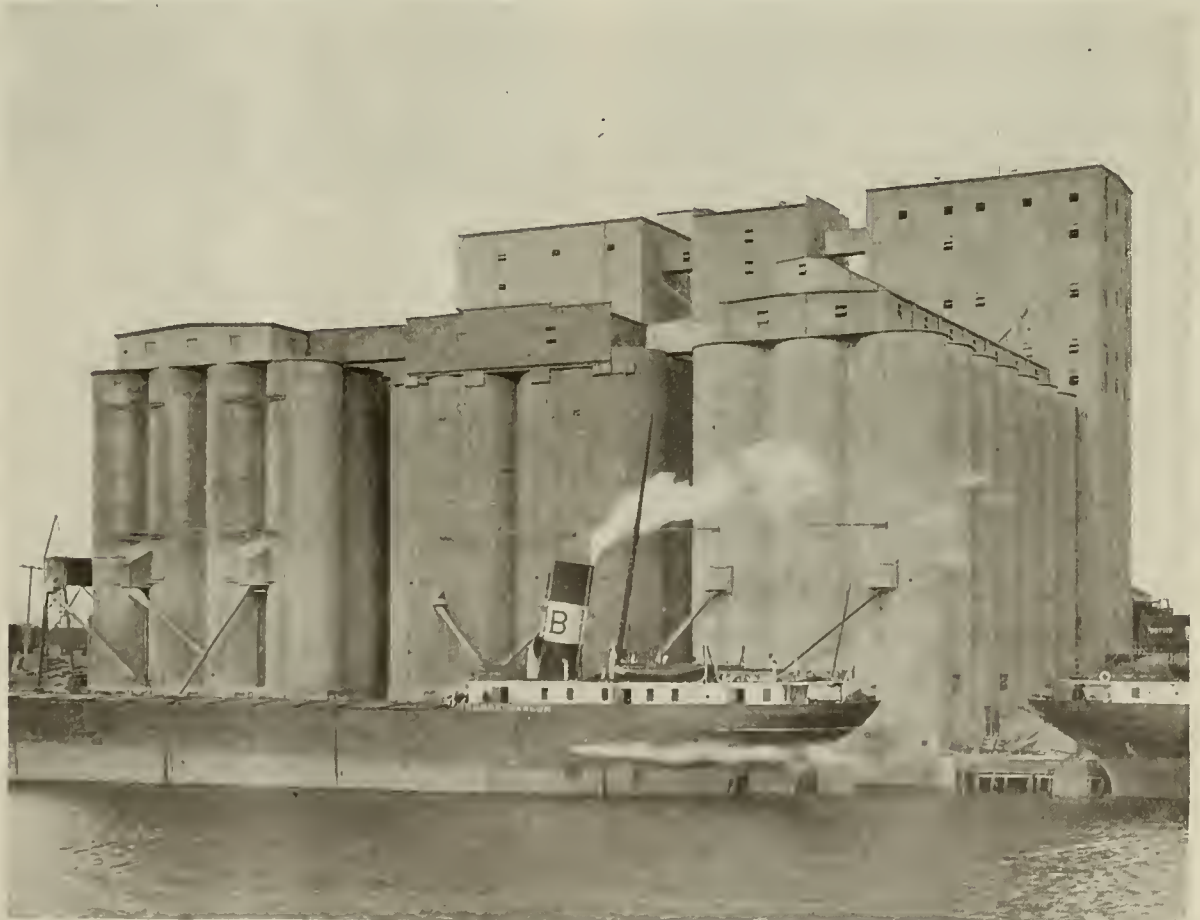
tight. It is known now that these impressions were erroneous. Good concrete is nothing but a matter of good materials properly proportioned, mixed and placed in accordance with the work at hand. Proper mixtures make watertight concrete.

Success in grain elevator construction, after proper design is determined, depends upon properly graded concrete mixtures composed of suitably clean materials. A 1:2:4 mixture, which



A MEDIUM-SIZED PLANT WITH CONCRETE TANK UNITS

means one sack of portland cement, two cubic feet of clean, coarse sand, ranging in size from the finer particles to those that will pass one-quarter-inch screen to four parts of screened gravel or broken stone varying in size from one-quarter of an inch to one inch, will meet requirements. Sufficient water must be used so that the mix will have a quaky or jelly-like consistency. Too much



EXAMPLE OF CONCRETE SUCCESSFULLY USED IN LARGE PLANT

size of the individual structures under construction.

Some of the earliest grain elevators that were built were unsatisfactory because the now well-recognized principles of concrete practice were not applied in their construction. The walls were not watertight and this gave rise to an impression that concrete could not of itself be made water-

water is as bad as too little in making the cement.

For appearance sake, it is sometimes necessary to apply a wash of cement to the outer side. This, however, is not necessary where concrete has been properly placed, as it is possible to obtain a smooth, even finish that will not require further treatment after forms are removed.



Parliament of the Grain Trade Opens October 12 in Kansas City

Grain Dealers National Association Meets at Hotel Muehlebach for Three Days in Conjunction with Conventions of Feed Distributors, Weighmasters, and Inspectors—Duvel, Carey, Paulen to Speak



IT'S A CITY of surprises, spilled out in a haphazard fashion over the steep Missouri hills, with something of the ungainly sprawl of youth. Even the downtown streets dip abruptly at unexpected intervals, as if in their hurry to build up the city they tumbled off the brow of a hill, and had to be pulled out again on the other side. Cliffs have been hollowed out to make room for great gray buildings—sometimes several stories of offices stand shoulder to shoulder with several stories of sheer rock. Groaning street cars crawl cautiously up the sharp inclines, and stout puffing business men make complicated detours to find level streets.

Around the outskirts of the downtown business district is a fringe of old-fashioned, castle-like mansions, standing with forlorn but stately dignity in the midst of their big, shady, unkempt lawns. Not so many years ago lights blazed at night from every turret and elaborate balcony, welcoming the best and brightest of Kansas City society. Pretty daughters, just home from eastern female seminaries, strolled with each others' brothers beneath the great whispering elms. Carriages drawn by sleek fat horses stopped under the hospitable porticoes, discharging their gay groups of scented, rustling callers. But the commercial urge has been inescapable; one after another of these fine old homes has been abandoned to careless hands—their imposing facades left to the flaunting advertisements of dressmakers, hair dyers, and rooming house keepers—genteel or otherwise.

Everywhere are signs of this relentless spirit of material progress. The suburbs shoot out in unexpected directions, like the random movements of a restless boy. Towering, palatial office buildings are crowding out, one by one, the unassuming edifices of another day. Endless miles of gleaming black boulevards cross and recross the city, taking care, that the visitor may be properly impressed, to glide past the wealthiest homes, and through enchanted groves where

Tenth and Wyandotte Streets. The 14-story structure on its imposing site, represents a total investment of about \$1,750,000, and will serve as a new drawing card for this year's convention which will be attended by association members from coast to coast. The new Board of Trade Building is suggestive of the prosperity which the Kansas City Board of Trade is now enjoying under the popular leadership of H. C. Gamage, president, and W. R. Scott, secretary.

Among other prominent grain dealers carrying on much of their business at the new exchange building, is an old friend of the association, L. A. Fuller, president of the Fuller Grain Company, and second vice-president of the Board of Trade. He is chairman of the committee looking after the general entertainment of the convention, and to those who know Mr. Fuller, and the other members of the committee, this means that there will be nothing lacking in the way of convention arrangements and entertainment. The other committee

have reduced rates which have been obtained from all of the passenger associations. A rate of one and one-half fares for the round trip has been secured.

The identification certificates entitling holders to the reduced rates, sent out by Secretary Quinn, should be presented when tickets are bought. If you haven't received your certificate write Secretary Quinn, Toledo, Ohio, for it.

The \$6,000,000 union station in Kansas City, a symbol of the city's importance as a transportation center, will serve those grain dealers arriving by train. Any parties coming by airplane are requested to look out for the hills when landing. If landing is effected on the golf course, the usual penalties in regard to tearing the turf will be enforced.

On the afternoon of Monday, October 12 (the first day of the convention) there will be a golf tournament. On Tuesday afternoon, October 13, everyone will be taken for a ride around the city. There will be no entertainment in the afternoon of Wednesday, October 14, the third day, because that is "getaway" day. Most of the delegates will begin their trip homeward on that afternoon.

The program for the business session of the convention sets forth a group of interesting and profitable subjects for discussion. The speakers listed on the convention program are men that know the latest developments in the nation's grain trade, and



H. C. GAMAGE, PRESIDENT KANSAS CITY BOARD OF TRADE

even the Keep Off the Grass signs are painted by artists' hands.

An eager big city, springing into a still bigger city even as one watches, straining passionately forward in the race to keep up with its modern self, carrying the zest and vigor and the aggressive enthusiasm of youth into every new enterprise, attacking every new problem with the cocky assurance of youth—here's where the West begins!

This impression of Kansas City by a resident* will gain a sympathetic response from every visitor.

Kansas City, grain capitol of the Southwest, home of the largest grain exchange building in the world, seems specially fitted to act as host to the Grain Dealers National Association meeting this year in its twenty-ninth annual convention, October 12, 13, 14, at Hotel Muehlebach. The gong of the Kansas City Board of Trade now rings out proudly each day in the new headquarters of Kansas City grain men at

*By Hilda Mauck, Kansas City, Mo.



NEW HOME OF THE KANSAS CITY BOARD OF TRADE

members are B. C. Moore, B. L. Hargis, W. C. Goffe, F. C. Hoose, and Harry T. Smith.

How will the Kansas City convention in October, 1925, differ from meetings in other years? Will it be advertised as the usual "greatest and most important" and then let go at that? The Kansas City hosts, working with the officers of the Grain Dealers National Association have made the following definite provisions that will lift the coming convention so far above the ordinary convention level, that few members will care to pass up the opportunity of attending.

Harry J. Smith, president of the Mid-Continent Grain Company, is the chairman of the Transportation Committee for the convention, taking the place of F. B. Godfrey, who died last July, and he has completed the plan whereby those who go to the convention in automobiles will have a convenient place (adjoining the new Board of Trade Building on the south) to park their cars free of charge.

This securing of parking space for delegates is not the only innovation at the Kansas City convention. Another one will be found in the one-session-a-day feature which is to be tried out for the first time. There are to be but three sessions all told, one each morning.

The afternoons will be given over to pleasure, informal discussions or to such trading as delegates may wish to conduct among themselves.

All those who go to the convention by train will



W. R. SCOTT, SECRETARY KANSAS CITY BOARD OF TRADE

their remarks will be of genuine value. The ladies are not to be forgotten. For them on Monday night will be a theatre party, and the following evening, their attendance at the banquet is urged. So much for the brief outline of what will take place on the convention calendar. For those who are interested in briefly reviewing the suitability in every respect, of Kansas City for the place of this meeting, the following facts and figures are given.

Though it ranks nineteenth in population, it is surpassed by only four other cities in the matter of hotel accommodation. More than 170 hotels are available to take care of the transient population.

It is this standing in hotels that has contributed toward the distinction which Kansas City has gained as a convention center—as a place to which huge gatherings may go with the positive assurance

that everyone will be adequately provided for—as a city which acts as host to more than 100 great conventions each year.

The Muehlebach has a fine convention hall on the second floor and it is reached by both elevators and broad stairways so that there will be no trouble about getting the delegates into the meeting place. It is, of course, always desirable to have the convention hall easily accessible to the main lobby down stairs. It is in the lobby that the delegates congregate and if the place of meeting is several stories high and can be reached only by elevators it is difficult to get the conventions started on time and there is always dissatisfaction when the sessions adjourn because there is a jam with considerable waiting before many of those in attendance can be taken down to the main floor. At the Kan-

graphical location, have developed a grain market second only to Chicago.

Twelve trunk line railroads enter Kansas City. All of the southwestern lines enter here and pour into the city's reservoir of elevators golden streams of grain. The reservoir is virtually unlimited in

ures give a fair idea of size of shipments arriving. Receipts of wheat in Kansas City in the 12 months of last year aggregated more than 90,800,000 bushels. Of that amount about 75,000,000 bushels came to market in June and the months following. That is to say, five-sixths of the year's wheat business was of the crop of 1924.

Most of it was Hard wheat, but there was some good Soft wheat received. The Hard Winter wheat of this territory was reported to be better than that raised in the states along the Ohio River.

Only once in the history of the Kansas City market have receipts in a calendar year exceeded those of 1924. That was in 1921, when receipts were 110,204,500 bushels. That was at a time when farmers still were producing wheat on a war basis. They had not yet begun to reduce the area sown.

There was a sudden jump in local arrivals



BEN L. HARGIS

sas City meeting there will be no trouble about getting the delegates either into convention hall or out of it when the sessions adjourn.

But however fortunate this city may be as to hotels, this is only incidental to another greatness of this metropolis of the wheat belt. A glance at a map shows instantly why Kansas City has become one of the great grain centers of America. It is the nearest point to the big surplus producing areas west of the Missouri River at which grain can be held in storage and when the demand comes, reach the greatest possible territory of consumers.

Located at the junction of the Missouri and the Kaw Rivers, Kansas City has become the second largest railroad center in America, and the great transportation facilities, together with the geo-



L. A. FULLER, CHAIRMAN OF THE ENTERTAINMENT COMMITTEE SHOWN ON THIS PAGE

capacity and when the selling time comes, the roads to the East carry away the streams the western roads brought in and leave in their place, cash.

To facilitate transporation service and keep costs down as much as possible, the Board of Trade maintains a transportation department that is ever making a fight for reasonable freight rates.

Naturally, an account of the Kansas City grain situation must include mention of the mills in the Kansas City district. By the proposed addition of the new Washburn-Crosby unit, Kansas City's milling capacity is now put to 31,350 barrels per day. Also there is an additional capacity of 17,300 barrels in Kansas towns, the mills owned controlled and operated by Kansas City men.

On August 15, the announcement was made by the Washburn-Crosby Company that its 3,000-barrel



W. C. GOFFE

amounting to 2,717,550 bushels in June to 19,730,250 bushels in July. Incidentally, the latter total broke all previous monthly records for Kansas City wheat receipts. Yet it was surpassed by August with 23,696,550 bushels.

The year was a record breaker in many particulars. Carlot receipts of wheat in July were 14,615 cars, which topped the previous record of 14,210 cars. But arrivals in August, 1924, were 17,553 car loads.

Carlots of all grains in July and August, 1921, which was Kansas City's heaviest year, were 30,640 cars. Those two months in 1924 gave a total of 35,146 cars.

The highest record of receipts of wheat ever made for any Monday in this market was on July 28, 1924, when 1,872 cars were on hand.

In 1902, wheat receipts for the entire year in



B. C. MOORE



HARRY J. SMITH

mill at Kansas City will be supplemented at once by a 6,000-barrel plant.

All the Kansas City mills have grain storage in proportion to their capacity and this serves to supplement the immense capacity provided by local grain men. Shippers therefore, even in the peak of the season are assured of ample grain holding facilities at Kansas City. Complete figures for the 1925 crop receipts are not available but to show the volume handled at this center, but the 1924 fig-



F. C. HOOSE

Kansas City were only 24,018,400 bushels. Compare that with 23,696,550 bushels, receipts for August, 1924.

Total wheat receipts for the whole of 1911 were only 25,701,800 bushels. It was not until 1914 that wheat receipts here reached 70,000,000 bushels.

The wheat crop of 1915 was a phenomenal one, aggregating 1,025,801,000 bushels; yet Kansas City that year received only 58,693,950 bushels. This year's crop is placed at 27,673,000 bushels.

That is to say that, nine years ago, Kansas City handled a little over 5 per cent of the crop, whereas last year the local market handled nearly 11 per cent of the crop.

Of the more than 90,000,000 bushels of wheat received, Kansas City distributed to other points a total of 62,015,950 bushels for the year. The heaviest month's shipments were 12,991,050 bushels which, of course, were dispatched in August.

Shipments of wheat from Kansas City in 1924, were about 69 per cent of receipts. They generally run in about that proportion. Yet the outgoing wheat movement last year, amounting to 62,000,000 bushels ranges from a half larger to two and a half times as much as receipts for any year up to 1914.

Only once have combined receipts of all grains, including wheat, corn, oats, the kafirs, rye and barley, exceeded total receipts of those grains last year. Only three times in the last 24 years have combined shipments of those grains exceeded shipments of them for this year.

Combined shipments of all grains last year aggregated 82,931,200 bushels and combined receipts of the same grains for the 12 months amounted to 127,883,450 bushels. The combined capacity of Kansas City elevators is approximately 32,000,000 bushels of grain.

Furthermore, receipts of corn in this market, amounting to 23,626,250 bushels for the year, are the heaviest ever known except once. That was in 1918, when arrivals ran up to 30,302,500 bushels.

Kansas City is not recognized as a big corn

market. The explanation for the liberal receipts in 1924 lies in the fact that the two preceding crops had been good in this territory, while last year's crop in the big corn states was far below the average.

Most all of the grain firms which handle these tremendous shipments are now housed in the new

available office space has been assigned to tenants.

Fireproof in every respect, the building forms an adequate home for the Board of Trade and its member grain firms. The construction is steel frame, encased in concrete with brick and terra cotta enclosures.

The flooring in the offices and suites is of con-



HOTEL MUEHLEBACH, CONVENTION HEADQUARTERS FOR GRAIN DEALERS NATIONAL ASSOCIATION

Board of Trade Building, before mentioned but without these interesting details.

Towering eight stories above its closest neighbor, the structure has about 700 rooms and facilities for accommodating 1,600 employees. The success of selling leases in the structure has been especially gratifying to the builders. Practically all of the

crete and in the corridors of terrazzo. Six elevators, three on each of two sides of the lobbies, carry employees to their places in the building. The elevators are of the latest type and design and of the variable voltage control type. They are equipped with all standard safety appliances.

Each floor in the building forms a separate fireproof compartment and can be shut off from all other floors in event of a conflagration. Fireproof doors at the stairs and elevators are a feature of the plan. All windows are metal, the only wood in the structure being the doors and the office baseboards.

The building has an outside court 33 by 51 feet on the west side and an outside court 41 by 51 feet on the east side. Space is available on the first floor for shops or offices.

The building has its own electric transforming substation and heating plants. A runway connects it with the Dwight Building, giving access to Baltimore Avenue.

Further details of this building, of the fast growing downtown district of Kansas City, and of the convention events, can be examined first hand by the visitors arriving October 12.

A trade association is known or judged by a number of things: Its membership volume, its influence at Washington, D. C., its influence among members in regard to arbitration, its bulletins, and by its leadership. In none of these things does the Grain Dealers National Association fail to measure up satisfactorily in 1925. It has been a year of hard work and accomplishment by officers and membership. The grain trade millenium is as alluringly distant as ever, but much of the post-war agony of spirit and profit has by this time gone by the boards. Association members can now look upon their organization as having been clearly instrumental in helping to bring the improved situation about. But as convention time rolls round, an association is known by the quality of program it offers. With the enthusiastic support and good ideas of the Kansas City hosts, it is now possible to present the following convention calendar for the approval of the grain trade:

Monday, October 12—9:30 O'clock

Call to order by the president.
Invocation—Rev. Burris A. Jenkins, Kansas City.
Address of Welcome on behalf of Kansas City—Mayor Albert I. Beach.
Address of Welcome on behalf of the Kansas City Board of Trade—H. C. Gamage, president.



CHICAGO AND ALTON RAILWAY ELEVATOR, KANSAS CITY, MO.

Response on behalf of the Grain Trade—R. E. Clement, Waco, Texas.

President's Annual Address—F. G. Horner, Lawrenceville, Ill.

Report of the Secretary-Treasurer—Charles Quinn, Toledo, Ohio.

Transportation—Henry L. Goemann, chairman, Mansfield, Ohio.

Committee on Rejected Applications—J. W. Greer, chairman, Minneapolis, Minn.

Tuesday, October 13—9:30 O'clock

Address—"The Chicago Board of Trade and the Grain Futures Act"—Frank L. Carey, president Chicago Board of Trade.

Address—"The Government—and the Grain Futures Act"—Dr. J. W. T. Duvel, chief in charge of Grain Futures Administration, U. S. Department of Agriculture, Washington, D. C.

Presentation of Booster Prizes.

Legislation—A. E. Reynolds, chairman, Crawfordsville, Ind.

Trade Rules—C. D. Sturtevant, chairman, Omaha, Neb.

Crop Reports—C. F. Scholer, chairman, Bloomington, Ill.

Membership—Lew Hill, chairman, Indianapolis, Ind.

Arbitration Appeals Committee—W. W. Manning, chairman, Fort Worth, Texas.

Arbitration Committee No. 1—J. R. Murrel, Jr., chairman, Cedar Rapids, Iowa.

Arbitration Committee No. 2—E. H. Bingham, chairman, Cedar Rapids, Iowa.

Arbitration Committee No. 3—S. L. Rice, chairman, Metamora, Ohio.

Arbitration Committee No. 4—E. W. Crouch, chairman, McGregor, Texas.

Arbitration Committee No. 5—Harry J. Smith, chairman, Kansas City, Mo.

Arbitration Committee No. 6—W. J. McDonald, chairman, Seattle, Wash.

Feed Arbitration Committee—J. H. Caldwell, chairman, St. Louis, Mo.

Wednesday, October 14—9:30 O'clock

Address—"The Railroads and the Freight Rate Situation"—Samuel O. Dunn, Editor of *Railway Age*.

Address—"Harmonizing the Grain Standards Act with the Pure Food and Drug Act"—H. J. Besley, Chief of Grain Division, Bureau of Economics, Department of Agriculture, Washington, D. C.

Uniform Grades—F. E. Gillette, chairman, Nashville, Tenn.

Feed Products Committee—E. C. Dreyer, chairman, St. Louis, Mo. (In presenting his report to the convention Mr. Dreyer will give the results of the group meeting of feed interests held on Monday and Tuesday, October 12 and 13. At this group meeting changes in the feed rules governing the handling of feedstuffs are to be proposed. If the group meetings make any changes in the existing feed rules Mr. Dreyer will present these changes to the general convention for adoption.)

Milling and Grain Joint Committee—Richard P. Johnson, chairman, Knoxville, Tenn.

Merchant Marine—W. L. Richeson, chairman, New Orleans, La.

International Relations—J. J. Rammacher, chairman, Buffalo, N. Y.

Hay and Grain Joint Committee—Geo. S. Bridge, chairman, Chicago Ill.

Unfinished business.

Election and installation of officers.

New business.

Adjournment.

ENTERTAINMENT

For the Ladies

Registration Headquarters, Hotel Muehlebach. Local hostess will greet the arriving ladies.

Monday, October 12—1:50 p. m. Luncheon at the Muehlebach Hotel for the ladies who attend the convention.

Monday, October 12—8 p. m. Theatre party for the ladies at the Orpheum Theatre.

For the Men

Registration Headquarters, Hotel Muehlebach. (Monday, October 12, being Columbus Day, is a Board of Trade holiday. It provides opportunity for the members of the Kansas City Board of Trade and the Committee appointed to arrange for the convention, to receive and meet arriving guests at the hotel.)

Monday, October 12—1:30 p. m.—Golf Tournament for Men. Motor cars will leave the Muehlebach Hotel at 1:00 p. m.

Monday, October 12—8 p. m.—Smoker for Men at the Kansas City Club. Music and entertainment.

For Ladies and Gentlemen

Tuesday, October 13—2 p. m.—Motor Ride for all through the city parks and boulevards.

Tuesday, October 13—8 p. m.—Banquet followed by dancing at the Kansas City Club. Ben S. Paulen, governor of Kansas, will be the speaker of the evening. F. G. Crowell, of Kansas City, will be the toastmaster.

FOUR CONVENTIONS AT ONCE

For many years the Grain Dealers National Association met alone, but in late years other allied organizations decided to hold their conventions at the same time and place as the G. D. N. A. Thus



KATY ELEVATOR OF THE UHLMANN GRAIN COMPANY, KANSAS CITY, MO.

it is that this year there will be four conventions of interest to the grain trade held in Kansas City beginning October 12. These four organizations are the Grain Dealers National Association, the United States Feed Distributors Association, the Terminal Grain Weighmasters National Association and the Chief Grain Inspectors National Association. The three last named organizations hold their annual meetings at the same hotel as the Grain Dealers National Association.

After the three associations get through with their deliberations they usually have some recommendations to make to the Grain Dealers National Association, and these recommendations are presented at the last session of the National and just before adjournment.

The United States Feed Distributors Association has evolved a splendid set of trade rules governing transactions in the handling of feedstuffs. The conditions controlling feed trades are in many cases different from those in the grain business, hence the feed men are more competent to pass upon proposed changes in feed rules. The same applies to scales and weighing and also grain inspection.

THE BEST TIME TO SOW WHEAT

"The time of sowing wheat has more to do with yield than the average grower is led to believe," says H. M. Bainer, Director, Southwestern Wheat Improvement Association. Continuing he says, "The best time to sow depends on location, season, soil, conditions and possible infestation of the Hessian fly or grasshoppers. A few days difference in the dates of sowing, even on the same field, may make several bushels difference.

"Reasonably early sowing is usually better than very late sowing. Early sowing, under favorable conditions, gives the plants a chance to form good roots and become vigorous enough to withstand the winter. Too early sowing is dangerous, especially if the Hessian fly is present in large numbers. Again, too early sowing is likely to produce a heavy growth that may use all the soil moisture during its early development, leaving nothing to draw on later. Late sowed wheat, on the other hand, often does not make sufficient fall growth to

prevent winter-killing and is more likely to be injured by drouth, hot winds, rust and smut; it stools less and ripens later, thus often producing low yields and poor quality.

"Several years records show that the following dates of sowing have given the best results: In eastern Kansas, from October 1 in the north to October 13 in the south. In western Kansas from September 15 in the northern part to October 1 in the southern part. In eastern Oklahoma, from October 13 in the northern part to October 20 in the southern part. In western Oklahoma, from October 1 in the northern part to October 20 in the southern part.

"It is a dangerous practice to sow wheat in the western parts of Kansas and Okla-

homa when the ground is dry, more especially if there is no subsoil moisture. Under these circumstances the most satisfactory way of seeding is to prepare the ground as early as possible, get the seed ready and wait to sow until the moisture conditions become more favorable."

IMPORTS of wheat from Canada to the United States, January 1, 1925, to August 22, 1925, were 64,000 bushels, as compared to 7,286,000 bushels in a like period in 1924.

THE Spanish wheat crop, according to Consul F. A. Henry at Barcelona, was insufficient for national consumption, and in spite of a carryover from the previous year and the importation of 22,000,000 bushels, permitted by Royal Order, stocks have been very low in late July and August. Although the price of Spanish grown wheat has not been fixed by the Government during the past year, the prices of bread and flour have, and this together with the importation of foreign wheat at fixed prices has served to prevent the price of the local product from rising to a level commensurate with the shortage of the crop.

ESTIMATING CONTENTS OF GRAIN BINS

In the absence of a running record of additions and withdrawal it is necessary often to resort to detailed computations or rough estimates to arrive at the quantity of grain contained in bins. Very close estimates of stocks on hand can be made at any time by means of a chart drawn for the purpose and arranged by E. N. Bates, investigator in grain handling, grain division, Bureau of Agricultural Economics, in the United States Department of Agriculture. The use of the chart, which is printed on this page, eliminates most of the computation otherwise necessary and reduces the work of estimating stocks on hand to a few observations, most of which need be made only once for each bin, and the rest is simple addition and multiplication.

The chart will serve in connection with bins of all sizes and shapes up to circular bins 23 feet in diameter (inside measurements) and 30 feet deep

side need be observed. The divisions of scale D, for use with circular bins, are so placed that only the inside diameter in feet need be measured, avoiding the necessity of computing the area from the formula

$$\left(\text{area} = \frac{3.1416 \times D \times D}{4} \right).$$

Note that the distances between

divisions on scale B are equal, and that those on scales C and D increase from left to right as the dimensions in feet increase. These increases in distances between divisions represent increases in areas.

There is a set of diagonal lines running from the lower left-hand corner upward to the right, one for each foot of depth of bin from 4 to 32 feet. The point of intersection of any these lines with any of the vertical lines gives the capacity of a bin of the shape and depth selected, read in terms of bushels from the scale (A) on the right. Use of a ruler helps in following the vertical and horizontal lines, especially in reading the scale.

There is also a set of diagonal lines running from the lower right hand corner upward to the left. These are for use in estimating the quantity of wheat (legal bushels) in the bin, after the space occupied by the wheat has been found. They consist of (1) a reference line (heavy) and (2) a line for each pound of test weight per bushel from 54 pounds to 64 pounds. The "60-pound line" is not the "reference line" because 10,000 bushels by weight of 60-pound wheat in a deep

bin formed by four regularly placed equal circular bins is 0.273 of the area of one of the bins. Grain flowing into a bin will pile up, and when wheat is withdrawn from a deep bin a depression is formed, the lowest point of which is directly over the outlet at the bottom of the bin. Unless the surface of the grain is visible, the person making the measurement of the depth should know whether grain was last put in or withdrawn from the bin and the location of the bin outlet.

WILLIAM D. ORTHWEIN DIES

William D. Orthwein, for over 50 years a St. Louis grain dealer, and a leader in the grain trade's development in that city, died at his home in St. Louis on August 24. He was in his eighty-fifth year and had been in poor health for some time. He was president of the William D. Orthwein Grain Company, the oldest grain firm in the city, but had not been active in the management of company affairs for about 10 years.

Born in Germany in 1841, he accompanied his father to the New World in 1855. He continued his early education in the schools of Logan County, Illinois, later returning to Germany, where he spent five years completing his studies. Returning to America in 1860, he was for 18 months employed as a salesman in a mercantile institution at Lincoln, Ill. In 1862 he went to St. Louis and entered the employ, as a bookkeeper, of the firm of Haensch & Orthwein, the junior partner being his brother, Charles F. Orthwein.

He remained with this firm until 1870, when his brother became head of the firm of Orthwein & Mersman, and he became one of the partners. These men were the first to make shipments of grain in bulk entirely by water route to New Orleans, and for a quarter of a century they were the principal exporters of grain via New Orleans and Galveston.

In 1879, by the retirement of one of the partners, the firm became Orthwein Bros., and maintained a corporate existence until 1893. Retiring from this connection, William D. Orthwein organized the firm bearing his name, admitting his sons, Frederick C. and Walter E., to partnership.

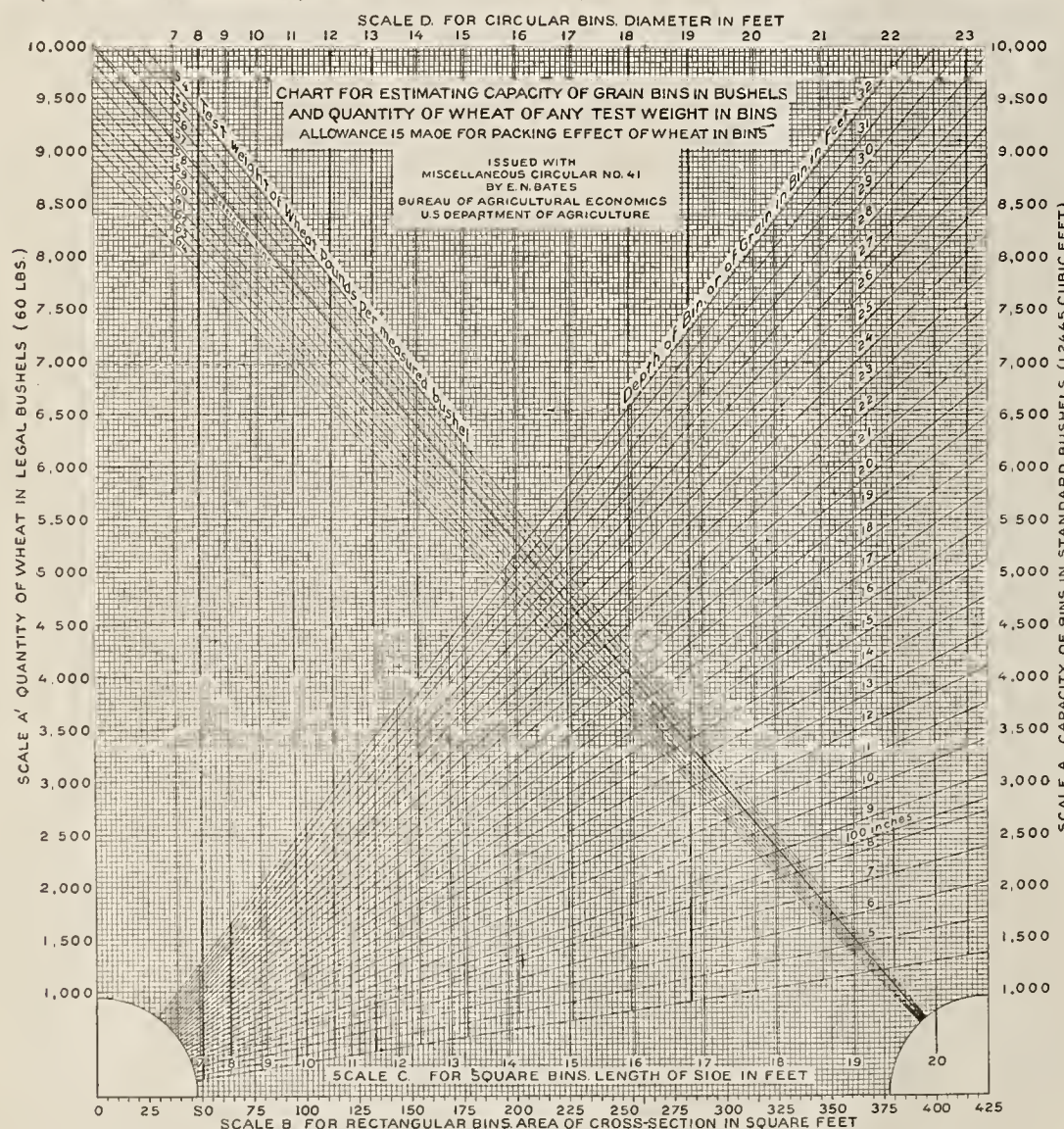
KNIVES NEXT TO GRAIN IN ELEVATOR STORAGE

There is nothing as practical looking as a big elevator and the last place in the world in which a person would expect to find a treasure hunt taking place is the interior of a great grain elevator. Yet in some of the great Canadian storage plants perhaps the most unique treasure hunt in the world takes place yearly, though never heard of in the great world outside.

In those hectic days ending the year all the resources of the railway lines of the country are centered upon emptying the vast prairies of their harvest of some 500,000,000 bushels wheat, oats and barley. From every direction, over countless branch lines, wheat laden freight cars by the thousands come, and are hurried over the double track Canadian Pacific transcontinental line to the terminal elevators at Fort William and St. John, where each car is dumped in but a moment of time. It is here, in these vast, towering elevators, more wonderful in reality than was ever any fairy castle, that yearly takes place the odd treasure hunt which brings to light sometimes horrible things, but all intensely interesting to the interested watchers in charge of the great "cleaning" machinery which winnows from the inpouring grain all extraneous matter.

The most common articles to be sifted out of the grain are knives; knives of every description and size. When it is taken into consideration that harvesters are continually using knives for cutting binder twine, it is easily understood how so many get mislaid and, passing through the wheat, eventually come to their destination.

In point of numbers, bottles are the next greatest yield of the wheat treasure hunt. Of all kinds and descriptions, both full and empty, they bob up in the pouring yellow tide of the cereals. The majority



(32 feet deep for smaller bins). When the depth is greater than 32 feet, capacity may be obtained by taking a fraction of that depth coming within the chart limits, selecting the lines indicated by the observations previously made, following them to the point of intersection and reading the scale of capacity or of quantity at the side of the chart. The Government circular says, in part:

There are two vertical scales, A and A', representing capacities of bins and quantities of wheat up to 10,000 measured bushels. The main divisions are made at each 500 bushels with 10 subdivisions in each. Readings may be made exactly, therefore, to the nearest 50 bushels and can be estimated still closer. All results may be taken from these scales. The two scales are equal, and readings may be made from either, but it is convenient to use scale A for finding bin capacities and scale A' for estimating the quantity of wheat in a bin.

There are three horizontal scales, B, C, and D, the divisions running vertically. These represent the area of the cross section of the bin. Scale B is in terms of square feet of cross-section area and has main divisions for each 25 square feet of area up to 425 square feet and subdivisions for each 2.5 square feet. This scale is general in its applications, but requires computation of the area in square feet, and need be used for round and square bins only when the special scales C, for square bins, and D, for circular bins, are not convenient. The divisions of scale C, for use with square bins, are so placed that only the inside length of the

bin will be packed into a measured space of approximately 9,525 bushels.

Having found the bin capacity occupied by the wheat, the estimated number of legal bushels of wheat is obtained by finding the intersection of the scale line for the number of bushels by capacity with the proper line for the test weight per bushel, and proceeding vertically up or down to the "reference line" and reading its position on the scale to the left (scale A'). A reversal of this process will show how much space a known weight of wheat of given test weight per bushel will occupy.

For bins deeper than 32 feet, a simple division by 2 or 3 will bring the depth within the limits of the chart and the volumes of the portions may be found and added. Similarly, bins of greater cross-section than 425 square feet can be estimated through division to meet the limits of scale B.

Readings from the chart, if carefully made, will ordinarily have less error than the measurements of the depth of wheat. An error of four inches in measuring the mean depth of grain in a 22-foot circular bin means an error of about 100 bushels, whereas the chart may be read closer than the nearest 25 bushels. There may be other slight errors incident to lack of uniformity in the test weight of the wheat and to variation of packing effect at different depths, as only the average was used in drawing correction lines. Mistakes in computation are practically eliminated, if observations are close and the proper lines on the chart are used.

In the case of interstice bins, if the thickness of the wall be disregarded, the area of the interstice

contain liquor. Hundreds of quart bottles with the seals still intact do the men watching the "cleaners" gather. And truly, in the year 1924, liquor of all things deserves the name of treasure, considering its price and demand. Probably the full ones were the property of tramps and smugglers, though how separated from their owners is an interesting mystery. Paper bundles containing bits of food are also common. Still more valuable food finds occasionally come drifting in, the most amusing of these an untouched side of bacon, a boiled ham, and a dead rabbit.

Next in order of interest, and greater in number than a person would ever think, come tools—hammers, saws, wrenches. Now and then a cheap watch rewards the watchers; at longer intervals a gold one. On many occasions rings, both of man and woman, raise the value of the daily treasure find. Keys, singly and in bundles, add to the watchers' wonder as to how all these things found their way into the grain. Letters, both of love and business, bank books and uncashed checks make their appearance; not few, but many, to add to the marvel and the strangeness of this hunt. In the cases of the letters and checks, of course, the finders nearly always get a clue. In one case the owner of uncashed checks worth several hundred dollars was located, and his checks returned; the oddest thing in connection with this case being the fact that the man could not account for them getting into the wheat—they had traveled more than 1,000 miles.

A dead prairie chicken in a fair state of preservation once reached the elevator. A cat, alive, though very weak and almost suffocated, came pouring out with the grain. It was revived and adopted at the elevator. Stranger still was the arrival of a corpse, that of a man. Investigation showed that the body had been hurriedly placed on top of the wheat at a lonely way point where passenger trains did not stop. Unfortunately, word of the body's arrival was mislaid, and so the corpse went on through to the terminal. A cash register—empty—was one of the unusual finds in a recent treasure hunt. A pair of lady's dancing shoes with the silk stockings neatly tucked within them are articles in the wheat quite the most mysterious, suggesting romantic things.

Even dynamite has turned up. The ordinary kind used for land clearing, and even dynamite of higher power, packed in cylindrical rolls of greasy paper about 10 inches long, though it holds the potentiality of immediate explosion, is not very easily put off. In fact most dynamite will stand a great deal of jarring. Just the same the elevator men were relieved when it was safely reclaimed.

Proving that this information which was recently printed in *The Northwestern Miller*, is straight from Canada is the reference to the large quantity of uncorked bottles. It is doubtful whether there would be evidence of such gross neglect in United States elevators. Even the empties here are often cherished as souvenirs.

CROP-METER MEASURES ACREAGE

An instrument in the nature of an automobile speedometer has been successfully adapted to a railway train by statisticians of the Federal Department of Agriculture, for measuring the acreage of various agricultural crops for comparative reports and charts. When the device is attached to the gear of the railway car it measures and records the number of feet of each kind of crop long the right of way. It was designed in 1923 for use on an automobile and was first used successfully in that way.

The Department, in briefly describing the device says:

The instrument, besides having a regular mileage meter, such as that on an ordinary speedometer, has 12 special dials—one for each kind of crop—with a set of push buttons which throws them into gear when needed. For instance, when, during the train journey, a field of cotton is being passed the button indicating cotton is pressed and the number of feet of cotton along the road in that particular field is measured and recorded. If the next field is corn, the

operator presses the corn button, and the number of feet in that crop are measured and recorded. If the next field should happen to be idle land, the idle-land button is pushed.

The first railway crop-meter measurements were made recently by a department statistician who made a 279-mile trip on a Georgian railway line. The data thus collected can be used to compare the percentage of one crop with another any year and also the percentage of one crop one year with the same crop in other years by repeating the trip over the same route.

PURCHASES ELEVATOR HE MANAGED FOR SIX YEARS

No great distance can be traveled in Illinois without passing numerous elevators and as they are seen along the main highways they vary in size from the smallest to the largest types of



ROY E. TAYLOR'S ELEVATOR, HUDSON, ILL.

country houses and vary in general appearance too in a noteworthy degree. Among those which have withstood the ravages of time and the weather for nearly two decades is the elevator belonging to Roy E. Taylor, at Hudson, Ill. By means of good management and the exercise of more than average care this elevator has been maintained in



OFFICE BUILDING OF THE HUDSON ELEVATOR

first class condition and compares favorably to many houses constructed within the last few years.

Organized in 1906 as a farmers' elevator, and operating under the corporate name of the Hudson Grain & Coal Company, the business functioned until 1925, and in June of the current year it was sold to Roy E. Taylor. He had been managing the affairs of the institution for the last six years. Previous to this time the company was heavily obligated by former managements to the extent of nearly \$70,000.

Mr. Taylor was formerly a deputy weighman for the Chicago Board of Trade, having served under Mr. Foss for about two years. He graduated from the College of Agriculture at Illinois University in 1908, and has for some time been successful in looking after farming interests as well as keeping up a close attention to the business of operating the elevator. The foreman of the house is A. H. Masincupp, who has spent the last 25 years in the

grain business, actively engaged in elevator operation. He is familiarly referred to by his numerous associates and friends among the grain companies as "Art." With the able management afforded the plant at Hudson, the enterprise has been consistently successful under its present executives and has excellent prospects according to all indications.

The elevator is of crib and concrete construction and is situated on the right of way of the Illinois Central Railroad. The frame structure measures 60 feet in length and 30 feet in width; and the concrete part of the plant is 35 by 20 feet. The house is 75 feet in height. It has a storage capacity of 50,000 bushels of grain.

The office building is a modern structure of brick, one story in height. It has metal ceilings and tile floors and all fixtures are modern. The equipment includes a steel vault, with other such necessities as a furnace, a lavatory and shower bath in the basement. A radio set with a loudspeaker is used in serving the patrons with markets and music, as well as the results of baseball and football games. Facilities have been provided to make the furnishings as complete as possible.

The plant has a receiving capacity of 20,000 bushels and a shipping capacity of 10,000 bushels. There are two grain cleaners, provided by the Constant XXth Century Company of Bloomington, Ill., and these afford a cleaning capacity of 1,500 bushels per hour. A Hess Drier is used, with a capacity of 7,500 bushels.

Electric current is used for both lighting and power, and it is furnished by central station service from the nearby town of Bloomington. The motors are two in number and provide the requisite 35 horsepower. A belt drive is installed. The equipment of the plant also includes two Howe Scales, one of which is a hopper scale and the other of which is of the platform type.

Protection against fire is afforded both by devices for using water to combat possible flame and by specially provided extinguishers. The plant handles corn and oats as well as wheat, and in the course of a year from 400,000 to 500,000 bushels are handled in the elevator. Coal and seed constitute the principal sidelines, the management having found that coal is a decidedly profitable adjunct to its grain business.

VANDALISM IN NORTH DAKOTA

Nine towns and cities of Grand Forks County, N. D., have organized for protection against vandalism during the harvest season. The necessity of forming vigilance committees to guard property is readily admitted by leading citizens and officials of each place visited by States Attorney Wineman.

The various towns have been instructed where possible, to organize committees of sufficient number so that there will be two men to keep watch each night, the same two men to be called on for this duty only one night each week. The guards are to arm themselves with shotguns loaded with shot of sufficient size to give vandals a most unpleasant reception.

WHAT WHEAT STEALS

It is a well known fact that many formerly productive wheatlands seem now to be losing their vitality. That there is not much mystery connected with such a development is shown by a reading of "A National Danger—Soil Exhaustion" in the August number of *American Industries*.

"A ton of wheat," says the writer, "takes away from the soil: Nitrogen, 47 pounds; phosphoric acid, 18 pounds; potash, 12 pounds. So, unless the farmer restores to the soil after every crop the constituents taken away from it, he is drawing upon his capital and this must lead in the long run to bankruptcy." The writer also emphasizes the necessity for cheap fertilizers and suggests that the manufacturers give their help, doing so in their own interests, because upon the prosperity of the farmers depends that of the manufacturers.

THE AMERICAN ELEVATOR AND GRAIN TRADE

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We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, SEPTEMBER 15, 1925

A SECRETARIAL SALUTE

THE Chicago Board of Trade, by a vote of 601 to 281, has saluted the Secretary of Agriculture. Saluted finally with good grace, after much scowling from the leaders of the minority and much nudging from the lieutenants of the other group. The new clearing house plan has been accepted.

Optimists often are right. There are some of these who hold that the new futures clearing plan will prevent over-trading, curb manipulation, and do away generally with the features of the exchange that the public and Secretary Jardine don't like. It is peculiar, however, that in interviewing different individuals on the new clearing plan, those farthest away from actual grain dealing contact with the Board, are the ones to whom the plan seems most clear, most needed, and most wonderful. Nearer the center of the plan's future operation, a more conservative estimate is popular. The new plan seems to be considered not with antagonism, but with the air of a portly man accepting a ready made uniform at Plattsburg. It may have to be altered later, but however ill it fits, he is sure that Uncle Jardine and the public will cheer when he puts it on.

SMUT POISON

ONE-HALF of the wheat coming into the Omaha market is said to be infected with smut. In other sections the situation is not so serious, but the smut problem, even in the least affected districts, is right now of paramount importance. This is the season of seed wheat purchasing. Any state in which

the smut spore is let to run wild is bound to eventually slide into a retrograde so far as wheat production is concerned.

Smut prevention is not a complicated problem. From Kansas to the farthest northwestern states, copper carbonate is being used successfully. All the things claimed for it in the Department of Agriculture's many bulletins, seem to be true. Seed can be treated with copper carbonate dust (available at any drug store) and the consistency of the dust is such that the seed treated now with it can be used any time this fall. The adhesive quality of this dust makes its protection lasting.

It has been definitely proven that this particular preventive does not hurt the germinating qualities of the seed. Some authorities declare it fosters growth. Two to four ounces of the dust should be used to the bushel. A barrel-churn may be used for the mixing, putting in a half-bushel of wheat at a time to insure a thorough coating of the seed grain. Two men can treat about 30 bushels an hour. This dust, which if used, means clean wheat on the next crop, costs about 25 or 30 cents per pound. It would be cheap at triple the price.

GRAIN CASTLES

IN AN Iowa town, every Sunday morning, there are half a dozen little Mexican children, living near the tracks, who "play castle" around the town elevator. The game is to see who is bravest. One boy is the bandit and stands in the doorway; the one who can get closest to the elevator-castle and then turn and run before being tagged by the pursuing bandit, gets to be bandit next time.

The idea of robbers being in the grain castle is unfortunately, not restricted to the minds of Mexican children. Grownup, white people in some localities still have a hang-over of local-grain-profiteering belief. Anything a local manager can do through newspaper publicity, to counteract this situation is bound to react favorably to his business and to the grain trade in general. Good will is good business; let the fairy story of the robbers be reserved for the enjoyment of the Mexican kids.

DOES IT PAY?

CAREY, Duvel, Paulen, Kansas City. If those names aren't drawing cards for a grain man, it is hard to conceive of any that would be. There are some grain dealers who pass up one good convention after another because they say that big meetings mean big entertainment but little profit. They are afraid they will have a good time, or that they will have to pay a dollar for a breakfast at the Muehlebach. They are also afraid that their business is not well enough organized so that they can get away for three days.

Those in that frame of mind should not go to Kansas City on October 12, 13, and 14, to the convention of the Grain Dealers National Association, because they will have a

good time, and the trip will cost them a few dollars, and there will be, for the majority, no immediate refund of expenses incurred. But to those who have found it advantageous to look farther than the end of their nose, the Kansas City convention has a definite appeal. Friendships in the trade can be renewed; speakers can be heard who generally have to be read about; new ideas on new ways to profit can be gained there or nowhere.

The man who doesn't occasionally walk away from his business to some vantage point where he can see his plant in its correct perspective, is a man who either is afraid to look at it, or who is letting go of an opportunity which his liveliest competitor probably takes hold of every time he has a chance.

YALE UNDER FIRE

IN a recent editorial, dealing with general business conditions as they related to the grain trade, mention was made that a dollar today, according to Irving Fisher, is worth 60 some pre-war cents. Some criticism in regard to using his estimate was immediately forthcoming.

Professor Irving Fisher, of Yale, may be an Episcopalian. That does not mean, however, that when his commodity index price tables are quoted occasionally in these columns, that there is an implied urge to readers to join the Episcopalian church. Professor Fisher advocates some sort of a commodity dollar, with a varying amount of gold behind it, to replace the Government's standard gold weight dollar, but that is (fortunately) as unconnected with his price indexes as is the matter of his particular religious faith, whatever it may be. His price indexes, published quarterly, are simply comparisons of current prices on a representative group of commodities which the public buys, with prices on the same articles in previous years.

However much may be said about the faultiness of his views on the gold standard, it cannot be said that there is any malicious academic theory back of his commodity price index tables; only the law of two and two equalling four is in evidence there.

F.F., F.F., F.

"YOU are rich," said the gentile, "but I am educated. I can now append to my name the degree, 'Ph.D.'" The Jew replied that he was not without degrees himself and even now was entitled to this substantial appendage to his name: F.F., F.F., F. Inquiry by the gentile revealed that, translated, the initials meant "two fires, two failures—one fortune." Fires in the grain dealing industry do not symbolize the success they do in some Jewish circles. On the other hand, each fire recorded represents a definite loss to some elevator management, and helps to emphasize the need for just the sort of thing that all are supposed to observe during the week of October 4 to 10, National Fire Prevention Week.

It is remarkable that just as this anti-fire

week is in the offing, there is an unusually large number of fires to record here in mid-September. A glance at page 191, on which recent fires are recorded for this issue, in comparison with the fire pages of most any preceding month, is convincing evidence that fire prevention week is coming at an opportune time. Harvest time is the worst time for elevator fires. If grain is not caught and destroyed in the bins, the facilities for holding the new crop go up in smoke. Fire prevention week is all right, but why not make it a fire prevention year? Leave the fire business of 1926 to those who can make a profit out of it.

EDITORIAL MENTION

The corn situation is well balanced. There is grain enough to feed, yet the price is remunerative to producers.

To anyone interested in grain, Kansas City is worth a trip, even if the Grain Dealers National Association were not to be in convention there.

When using copper carbonate dust in treating seed wheat for smut prevention, care should be taken not to inhale the light dust. Let the smut spores get all of it.

In the Kansas City station waiting room, reports *Who Is Who In The Grain Trade*, 65,000 persons may stand "comfortably." There will be better things to do October 12, 13, 14.

The Blatz Brewery Elevator "A" in Milwaukee, Wis., is being torn down. Since prohibition it has stood vacant. The courtesy of a farewell toast, using near-beer, of course, should be extended to it.

Those who are worried about the United States losing out somewhat on shipments of machinery, grain, etc., to Russia, should at least recognize that their's is a small worry. Russia in its best days only bought one-seventieth of our total exports.

W. T. Giese, Montana grain expert, says the standard test charges in his state are as follows: Grade test, 75 cents; protein test, \$1; carload inspection and test, \$1.25. Reasonable test charges by state departments foster the interest of the grain dealer and farmer in determining the value of their grain.

More grain grown by Illinois farmers is marketed through their 600 farmers' elevators than in any other state in the union, states a report from the Illinois Agricultural Association. An annual business of \$52,445,000 is credited to farmer elevator organizations. This is 30 per cent greater than the business done by like agencies in Iowa, which ranks second in that respect. From recent statements published by the association mentioned above, it is clear that it plans to use the farmers' elevators in Illinois as a basis for the formation of a central sales agency

to serve the units scattered throughout the state. It was from such an idea that the Grain Marketing Company stole so much thunder.

Germany's 1925 wheat crop amounts to 2,903,000 metric tons, an increase of 20 per cent over last year's crop. Inasmuch as Germany is a debtor nation of ours, these figures which spell prosperity to Germans, should not be looked upon too enviously.

The 300 hours of bright sunshine of a Canadian June are held by competent botanists to "make" the quality of Canadian wheat. Great Britain had 270 hours of sunshine last June, but even with the improved yield resulting, the British Isles will produce only about 20 per cent of home wheat requirements.

The St. Louis Merchants Exchange is arranging for a special train to the Grain Dealers National Convention at Kansas City. It will help carry in the record breaking attendance, part of which will naturally come by way of St. Louis from the South and East. Railroads haul not only grain for the grain trade.

Information comes from the interior of Canada that a farmer, experimenting with seed developed by Burbank, has raised 80 bushels of wheat on one acre. In addition to developing wheat that will resist rust, it is reported that the protein content of the berry is very high. An attempt to verify part or all of the report is being made.

The peculiarities of a bolt of lightning were recently evidenced at Carthage, S. D., when fire was discovered the afternoon following the evening when lightning struck an elevator. The bolt had torn a hole through the roof, and dust must have kept the fire smouldering for over 12 hours before the flames broke through and gave the secret away.

Russia as a whole probably produces about 98 per cent of her total wheat requirements, but as her government is not unitary, and one allied republic is not bound to sell to another, a situation now exists in which the southern Soviets may be selling wheat for export, while central and eastern ones are buying flour and wheat for import. United they do not stand.

The Government's crop report of a little over a week ago indicates little improvement since last month. The forecast of a 65,000,000 bushel decrease in the corn crop as reported a month ago is partly made up for by a 21,000,000 bushel increase predicted for Spring wheat. The corn yield is now placed at 2,885,000,000 bushels and the Spring wheat crop at 284,000,000 bushels. The barley crop this year will likely be exceeded in volume by yields in only three other years. Barley growers will harvest about 222,000,000 bushels from the present crop.

Higher grain prices, the Department of Agriculture continues to point out, are due to poor yields rather than to increased con-

sumptive demand. The Spring wheat forecast, for example, is only slightly larger than the 283,000,000-bushel return a year ago, despite the fact that acreage was increased 19 per cent over last year. Give the grain grower an inch of prosperity and he will try to take a mile. The present market price levels seem only to be beckoning the grower to plant an increased acreage of grain crops. The same situation will then exist that caused so much distress immediately after the World War.

If a buyer specifies to the shipper a certain routing, it is up to the shipper to select a line that is a party to the tariff covering the routing specified. That is a recent decision of Arbitration Committee No. 4 of the Grain Dealers National Association, and bears out the general belief that these committees can be depended upon for impartial and just reactions.

Though not a producer of corn in the tremendous volume that the United States is, Hungary is one of the largest surplus corn producers in the world. The crop there this year will amount to about 95,000,000 bushels, against the 80,088,000 bushels last year. The new Hungarian crop in contrast to our corn harvest is far more than enough to take care of domestic requirements.

Some time before the election last November, the price of wheat began to rise. Senator Shipstead, as other third-party enthusiasts, told the farmers that Wall Street was lifting the price and that after Coolidge and Dawes were elected, the price would be slammed down again. He advised them to sell their wheat before election. Some of them did. Things look bad for the senator's re-election.

The barge shipping business is picking up. During the first six months of 1924, the Federal Barge Line, operating on both the Warrior River in Alabama, and on the Mississippi, between St. Louis and the Gulf, recorded a deficit of \$15,000. For the same period this year, a profit of close to \$350,000 was made. Water transportation, as a supplement to rail service, pays both user and operator.

Comparing 1920-23 with 1910-14, the United States has increased its wheat exports 19.2 per cent. Canadian production during the same period increased 81.7 per cent; Argentina, 33.6 per cent; Australia, 40 per cent; India, 3.1 per cent. In the meantime, Russia, formerly a wheat country of some rank, went in for crimson-colored politics, letting little things like wheat production go by the board.

The Hoch-Smith investigation is now on in Chicago. Mr. Hoch and Mr. Smith are about the only ones left who dare say it is a timely investigation, inasmuch as the principal items covered by their resolution are already receiving preferential rate treatment as compared with other commodities. As a political gesture of deference to the farmer, it may win some votes for the administration, but not many. It is too hackneyed.

O. B. HASTINGS
Cairo

NEWS OF THE TERMINAL MARKETS

P. P. DONAHUE
Milwaukee

ST. LOUIS VOICES OPINION

The Board of Directors of the St. Louis Merchants Exchange, in considering remedies for whatever evils may exist in the operation of present option markets, recently went on record as favoring the following principles: Establishment of a clearing house by the Chicago Board of Trade similar to those now in operation at other contract markets; permission for nonresident members of the Chicago Board of Trade to vote by mail at elections held by that board; removal of restrictions on privilege trading; establishment of a rule limiting speculative commitments to a reasonable and practical amount.

J. C. SUTTIE

It may be permissible to lapse into the vernacular and say that J. C. Suttie of the Suttie-Pederson Company of Omaha, Neb., eats and sleeps transportation. He may not go that far but evidently knows



J. C. SUTTIE

something about the subject for he has been the traffic manager of the Omaha Hay Exchange since 1921, and is the traffic manager of the National Hay Association. His comprehensive report at the recent meeting of that organization brought expressions of commendation from leading members of that body. Mr. Suttie is also president of the Omaha Hay Exchange.

Mr. Suttie was born in Omaha in 1889, and entered the service of the Chicago & Northwestern Railroad at Omaha in 1906 in the engineering department. He advanced to the office of the General Freight and Passenger Agent in 1908 and served as chief clerk from 1914 to 1918. He enlisted in the United States army in 1918, in the air service, and was discharged in 1919 with rank of Sergeant U. S. Air Service Balloon Section. In the year of 1919 he entered into the hay business at Omaha and has been actively engaged in the wholesale receiving and shipping of hay since that time.

Mr. Suttie is a member of the Masonic order, has taken the Scottish and York Rites and is a Shriner. He is a most modest gentleman and performs valuable services without any blowing of horns or orchestral din.

According to Mr Suttie's code, it is not necessary

to use friend or foe as stepping stones to bigger business or higher things but the march forward is accomplished by mutual helpfulness from every one. Just as says the motto of the National Hay Association, "Not for self, but for all."

LIMITED OFFERINGS OF WHEAT

The demand for wheat in our market is sufficient for the limited offerings. The small amount left on the farms will not move to market until after the holidays.

The demand for old corn is slackening up some as the indications now are that the new corn will move much earlier than usual and that the quality will be much better than the old.

Oats demand is well maintained considering the liberal receipts, which are expected to be much lighter until after corn cutting and wheat seeding.

The weather during the last three weeks has been dry and hot, but little permanent damage has been done to the early corn, but the late varieties will suffer 10 per cent to 25 per cent loss.—*E. T. Custerborder & Co., Sidney, Ohio, Market Letter of September 12.*

GOOD PRICES FOR WHEAT AND OATS

Our prices on wheat and oats in this market are very strong.

No. 2 Red wheat is worth about 12 to 15 over September shipping point on basis of 28½ cent rate to New York. No. 2 White oats on same freight basis will bring 2 to 2½ cents over Chicago September or 40 to 40½ track 28½ cent rate. No. 3 White oats 1 cent less.—*The C. A. King & Co., Toledo, Ohio, Letter of September 12.*

ACT ON JARDINE'S SUGGESTION

By a vote of 601 to 281, members of the Chicago Board of Trade, on September 3, adopted an amendment to the exchange rules which will permit the immediate inauguration of a new system for clearing trades in futures. This new clearing plan, the details of which are yet to be worked out, was briefly outlined in last month's issue of the AMERICAN ELEVATOR AND GRAIN TRADE.

Secretary of Agriculture Jardine's strong stand in favor of the amendment balloted upon had considerable to do with causing many who had in previous years opposed such a plan voting in favor of it. The new plan is regarded as complying with the spirit of the Grain Futures Act, and it is hoped that as soon as it becomes operative it will tend to restrict wide fluctuations in grain prices. As a result of the attitude taken by the Board no adverse legislation by Congress this winter affecting the grain trade is anticipated.

By this action the Exchange fulfilled its pledge to the Government that constructive measures to prevent wide price swings would be made operative as soon as possible. Frank L. Carey, president, declared it to be "a great forward step which will benefit every one interested in the marketing of grain."

Parker M. Paine of Logan & Bryan, a director of the Board of Trade, was appointed chairman of the committee to work out details of the new clearing house system. E. D. Norton, H. H. Lobdell, Edward P. McKenna, and Fred S. Lewis are members of the committee.

Five or six proposals to amend the exchange rules and provide for a new clearing house have been made during the last 20 years, the last effort being

late in 1921, but opposition to a change has been too great heretofore, and they were defeated.

L. A. FITZ

We present herewith the newly appointed Grain Exchange Supervisor at Chicago, L. A. Fitz, who was appointed by the Department of Agriculture to take the place of Dr. J. W. T. Duvel on August 1 on the latter's removal to Washington. Mr. Fitz came to Chicago direct from New York where for the past three years he has been connected with research work in the laboratories of the Fleischman Company. Previous to going to New York, he was stationed at Manhattan, Kan., for 12 years where he was head of the milling industry department of the Kansas State Agricultural College.

Mr. Fitz, before his connection with the state



L. A. FITZ

college at Kansas, served with the United States Department of Agriculture for eight years at various points. The last four of these years he was associated with the grain standardization office where he helped lay the foundation for Federal grades and Federal supervision. He helped collect the data for the grades and had charge of the milling and baking experiments on which were determined the grades of milling wheat. While in Kansas Mr. Fitz also had charge for 10 years of the enforcement of the feedstuffs law.

It is very apparent from the foregoing that Mr. Fitz comes to Chicago with a ripe experience for filling the grain futures office. He is a man of marked ability and will administer the affairs of the office wisely and justly and to the best interest, according to his judgment, of all concerned.

FAIR DEMAND FOR CORN

The receipts of oats are somewhat lighter but demand is slow. However there is fairly constant demand for No. 2 White with No. 3 grade of desirable quality also in demand. Poor quality No. 3 White are hard to dispose of, only at substantial

discounts. The local crop of oats has yielded very heavily and these oats are now being put on the market curtailing the demands for shipments considerably. Reports generally indicate that country elevators are well stocked with oats at this time. Values here are well in line with all other markets.

Demand for corn is fair and receipts increasing from nearby points. Buyers are only taking hold for the immediate requirements, anticipating an early movement of new crop. Better grades only are in demand and elevator stock increasing slightly.

There is some demand for No. 2 Red Winter wheat from nearby mills, as the local wheat has not commenced to move and crop is much lighter than generally supposed in western Pennsylvania territory. No. 2 Red bringing prices well in line with other western markets.—*Harper Grain Company, Pittsburgh, Pa. Market Letter of September 12.*

RECEIPTS LIGHT

Receipts are extremely light and soft wheat in rather urgent call especially best grades of soft wheat. We look for continuance on premiums as at present there seems to be a milling call for everything that comes along. We advise consigning of this kind of grain but would suggest watching loading as much of the wheat coming from the farmers now is weevily and frequently warm and needs careful handling.

Movement of old corn is light and the differences are favorable for good sales on spot corn. We are inclined to think that new corn is higher and sales for future shipments would be profitable. Our observation over considerable part of Indiana is that very little if any damage has occurred and that the crop is ripening naturally and will prove to be large in quantity and fine in quality. We would appreciate any inquiries as we are in position to take care of any new corn business to quite good advantage.—*H. E. Kinney Grain Company, Indianapolis, Ind. Market Letter of September 12.*

THE CHICAGO BOARD OF TRADE

"It may be worth while to remind ourselves of what constitutes the Chicago Board of Trade, and what has been its record. The exchange was organized 77 years ago. For 60 years it was the leading civic force in the Middle West, and always has been our greatest commercial enterprise.

"There are 1,600 members of the Board of Trade. About half of these are daily active in the marketing of grain and handle approximately 90 per cent of the entire grain business of the United States. In its export business and its foreign contacts this market is as much a world institution as it is a Chicago institution.

"This is one of the few great markets in the world that has been open and that has transacted business without interruption on every business day since it was organized 77 years ago. It has gone through every panic, and it was one of the few exchanges in the world to remain open in August 1914 when the world war demoralized values and disrupted exchanges.

"The Chicago Board of Trade is unique in many of its manifestations. It is particularly so in that millions of dollars change hands in its pits within a single hour with no written, and usually with no spoken, contract between the parties to these transactions. On a mere nod of the head and crook of the finger two men bind themselves and the interests they represent in transactions which may involve a thousand or a million dollars; yet in these operations the percentage of disputes is probably smaller than in any business in which written instruments are exchanged and collateral pledged.

"Obviously there have been in recent months abuses in trading on the Chicago Board of Trade which should be corrected. Probably most of them could be corrected without any change in machinery. Obviously, too, these abuses have been grossly exaggerated.

"To hope to remove speculation from the Chicago Board of Trade is to hope to exterminate the board. It is a speculative market and always will be. As such it has a definite and important part in

the economic scheme of things and constitutes the most effective system yet devised for marketing grains. It does tend to stabilize price. It brings to bear on price determination all informative factors of world conditions. It provides capital wherewith to carry crops from one harvest to the next; and it gives a fluidity to a market that is impossible under a cash system of barter. The supreme court of the United States and jurists and economists without number have verified the utility of the exchange.—*Glen Griswold in the "Chicago Journal of Commerce", September 3, 1925.*

AN INFLUENCE FOR GOOD

Wasn't it Mr. Shakespeare of England who wrote "The evil that men do lives after them; the good is oft interred with their bones." Far be it from us to take issue with the divine bard. We have the most profound respect for the poet's opinions on all matters pertaining to human nature or the comedy of life. It seems, however, that in the foregoing quotation Bill may have sacrificed a little of truth to his high sounding epigram. Today, the results of a good man's life do survive him; while over the evil accomplished, his friends and family are seemingly content to draw a charitable veil.

We present two men in the accompanying sketch



H. G. MORGAN AND ALFRED H. LEA

who have done much good during their lifetime which will not be interred with their bones. They were present at the meeting of the National Hay Association at Cedar Point, Ohio, in July and not only helped promote an excellent convention both in the social and business sessions, but their every day endeavors in promoting higher standards of business cannot fail of appreciable, beneficial results.

H. G. Morgan hails from Pittsburgh, Pa., where he heads the hay and grain firm of H. G. Morgan & Co. He was elected vice-president of the National Hay Association in 1903 and was chosen president at St. Louis, Mo., in 1904, to serve during the Louisiana Purchase Exposition year. He was instrumental that year, in an appeal to President Roosevelt at Washington, together with leading members of the National Hay Association and the Grain Dealers National Association, in securing more favorable rates under the Interstate Commerce Act.

Mr. Morgan was also president of the Pittsburgh Grain and Hay Exchange in 1904 and has perhaps the longest record of sustained activities in the hay line, of any house in Pennsylvania. He was a partner in the National Hay Sheds Company with the late H. W. Robinson in Cleveland, Ohio. He was also appointed by President White of Duluth to serve the unexpired term of director Samuel Walton when death removed that well known member of the National Hay Association a few years ago. He has served on most of the committees of the National organization and his readiness and fluency as a speaker have proved of great aid to the Na-

tional presidents who frequently were obliged to find quickly a man to take some absent members place on the program. He is also one of the surviving line of five oldest ex-presidents, the others being George Warren, George S. Bridge, Charles England and John L. Dexter.

Alfred H. Lea became first associated with the hay business in 1913 having formed a more or less active connection with Steele & Payne Company of Charleston, W. Va. In June, 1916, this firm became Davis, Payne & Co., and Mr. Lea was appointed its secretary and assistant manager. When in April 1920, Mr. Davis established the Davis Flour & Feed Company at Charleston as a jobbing concern, Mr. Lea assumed entire direction of Davis, Payne & Co.'s affairs. He continued here until April, 1922, when Mr. Davis became manager of the Charleston Milling & Produce Company. Mr. Lea then took up the management of the Davis Flour & Feed Company, although still maintaining his interest and connection with Davis, Payne & Co. On August 1, 1924, he took over the entire business of this firm and the name was changed to Lea & Co.

VOLUME OF TRADING IN GRAIN FUTURES IN AUGUST

The trading in grain futures on the Chicago Board of Trade aggregated a total of 1,344,984,000 bushels of wheat in August according to the report of the Grain Futures Administration, as compared with 891,432,000 bushels in the month of August a year ago. There were 369,154,000 bushels of corn traded in August, against 650,829,000 bushels a year ago; oats, 135,158,000 bushels against 171,897,000 bushels; rye, 44,026,000 bushels against 141,420,000 bushels.

The open contracts in futures on the Chicago Board of Trade for August were wheat 96,016,000 bushels as compared with 90,783,000 in July and 103,475,000 in June; corn, 51,983,000 bushels in August as compared with 46,553,000 bushels in July and 55,271,000 bushels in June; oats, 43,652,000 bushels in August as compared with 33,374,000 in July and 41,976,000 bushels in June; rye, 10,924,000 bushels in August as compared with 8,895,000 bushels in July and 8,515,000 bushels in June.

WHEAT MOVEMENT LIGHT

The movement of wheat here has been extremely light, the cash demand good, and we believe should a break of about five or ten cents per bushel from today's closing price be experienced, same will create a larger movement.

In the past week corn receipts have been increased considerably. The demand has been nominal, in fact at times very poor. However, we notice a slight improvement in the demand for our receipts today. This commodity in our estimation may go to a premium within the next month, according to the quality, etc.

Receipts of oats have been very good. Demand has been good as far as our own market is concerned. However, our buyers state that they are meeting with a very poor demand from eastern territory. Nevertheless, there has been quite an accumulation of this commodity in Toledo and the trade seems to be inclined to carry same, awaiting a better demand in the near future.—*J. F. Zahm & Co., Toledo, Ohio. Market Letter of September 12.*

CHANGES IN MEMBERSHIP

Chicago.—The following memberships on the Board of Trade have been transferred: Harry B. Shaw, Charles A. Jennings, John J. Lindman, Frank G. Brown, Estate Marshall Hall, Amasa U. Scoville, Leonard A. Brosseau, Harry B. Signor, Alan H. Hibbard, Estate Louis Livingston, Isaac J. Bloom, Silas H. Smith and Estate Thomas J. Cannon. The following have been elected to membership: Joseph McCord Vercoe, Lloyd Earle Winter, Hubert McDonnell, Frederick C. Sawyer, William T. Brookling, Edward Hyman, James W. McTague, Lee W. Pardidge, Benj. Franklin Sterling, Abraham Brown, John B. Gannon, Charles E. Hunting, Jr., John D. Cannon. J. Clarke Dean has been reinstated. Watson S. Moore was suspended. Reported by Secretary James J. Fones.

Duluth.—New members on the Board of Trade

are: M. H. Anderson, F. P. Heffelfinger and D. J. McCaull. Memberships of Julian Seim, H. S. Macgregor and R. A. Dinsmore have been withdrawn. Reported by Secretary Charles F. MacDonald.

Milwaukee.—Milton D. Marlett has been elected to membership in the Chamber of Commerce and the membership of Wm. A. Zahn has been transferred.

TERMINAL NOTES

J. H. Lang has discontinued his grain business at Oklahoma City, Okla., to become connected with the Cherokee Grain Company.

The Flanley Grain Company of Sioux City, Iowa, has closed its office at Cedar Rapids, Iowa, and J. E. Larkin has moved to Sioux City.

The Cleveland Grain & Milling Company, Cleveland, Ohio, has moved its office from the New Central Building to 706 Traction Building.

The Jackson Grain Company of Oklahoma City, Okla., has moved its offices from the Cotton Exchange Building into the Grain Exchange Building.

The Quinn-Shepherdson Company of Minneapolis, Minn., has established a branch office on the sixth floor of the Grain Exchange Building, Sioux City, Iowa.

The Froedtert Grain & Milling Company of Milwaukee, Wis., has moved its offices from No. 86 Michigan Street to Room 206 Chamber of Commerce Building.

Robert E. Gubbins, grain broker, was recently elected secretary-treasurer of the Boston Flour and Grain Club to fill the unexpired term of Robert E. Sawyer who resigned.

A charter has been granted to the Santa Fe Grain Company of Fort Worth, Texas. The capital stock is \$15,000 and the incorporators are Lee Potishman, T. F. West and Carl Maurer.

W. S. Farrington, until recently with the Globe Elevator Company at Buffalo, N. Y., has become connected with the Keno Feed & Grain Company which has purchased a feed plant in Buffalo.

The McCaull-Dinsmore Grain Company of Minneapolis, Minn., has reopened its offices in Sioux City, Iowa, in Rooms 628-629 Grain Exchange Building. T. W. Peterson is in charge of the offices.

The Hax Company of Baltimore, Md., will remove grain and feed offices to the Chamber of Commerce Building from the old location which it occupied for very many past years.

The Armour Grain Company of Chicago, Ill., has been granted corporate membership privileges on the floor of the exchange by the Board of Directors of the Milwaukee Chamber of Commerce.

C. C. Lewis, head of the Lewis Grain Corporation, Buffalo, N. Y., visited with Mrs. Lewis the Lake of Bays, Canada, early in September. John Stouten had charge of the business during his absence.

Russell Ward has resigned his position as sales manager of the Quisenberry Feed Manufacturing Company at Buffalo, N. Y., and plans to engage in the grain and feed business on his own account.

L. H. McLaren, supervisor of protein testing in the Kansas City Board of Trade Laboratories, has tendered his resignation to the Board of Directors and has engaged with a large bakery in Kansas City.

R. W. MacDonald, formerly associated with the A. S. MacDonald Commission Company of Boston, Mass., has engaged in the grain business on his own account. Offices are in the Boston Grain and Flour Exchange Building.

The new building fund of the Chicago Board of Trade, Chicago, Ill., on August 17, was \$242,500 United States Third 4½ per cent Liberty Bonds of 1928 at cost \$246,698.89; \$58,900 Board of Trade 4 per cent Bonds of 1927 at cost \$58,328; cash \$179.38 making a total of \$305,206.27.

The grain and feed business of W. P. Brazer & Sons, which has been conducted at Philadelphia, Pa., for very many past years is being liquidated. William P. Brazer, the founder and head of the concern, retired from active connection with its affairs several months ago and was succeeded by his son

Howard F. Brazer. The latter recently announced that he would locate permanently in Miami, Fla., and the firm's offices in the Bourse Building are to be closed.

C. E. Higbie, for several years representative in Illinois and Wisconsin of Deutsch & Sickert Company, Milwaukee, Wis., is now managing the hay department of the Farmers Produce Company of Chippewa Falls, Wis.

James T. Mallon who has been for some time associated with the grain trade of Milwaukee, Wis., has become connected with the La Budde Feed & Grain Company of that market and will have charge of the barley and rye department.

Robert W. Sawyer has retired from the grain brokerage business at Boston, Mass., and will follow some other line of activity. He was secretary of the Boston Flour and Grain Club and for several years represented J. J. Badenoch & Co., of Chicago.

C. W. Lonsdale, president of the Simonds-Shields-Lonsdale Grain Company, Kansas City, Mo., left on a trip to Seattle, Wash., and other coast cities early in September in the interest of the United States Merchant Marine as vice-president of the United States Chamber of Commerce and member of the merchant marine committee of that body.

The Philadelphia Grain Elevator Company, a subsidiary of the Reading Company, will increase its capitalization from \$480,000 to \$1,500,000 and its bonded indebtedness to \$3,000,000. This action is for the purpose of financing the new export grain elevator which the company plans to build at Port Richmond. It will have a capacity of 2,500,000 bushels.

An error appeared in our August issue in which the Poplar Grain Company was referred to as the Popular Grain Company. The Poplar Grain Company, Poplar, Mont., was incorporated to do a general grain business at Poplar with its main office in Minneapolis, Minn. The incorporators are L. G. Truesdell and E. W. Diercks of Minneapolis and Chas. G. Johnston of Williston, N. D.

W. T. Brookings, president of the Marshall Hall Grain Company, has resigned from the Rules Committee of the St. Louis Merchants Exchange owing to the pressure of other business. Claude Morton of the Morton Grain Company has been appointed chairman of the committee to succeed Mr. Brookings and Frank M. McClelland has been appointed a member of the committee.

Harry H. Newell, vice-president of the Rogers Grain Company of the Webster Building, Chicago, Ill., had as guest, K. S. Myers, prominent citizen and grain dealer of Milford, Iowa, the first part of September. One of the objects of Mr. Myers' visit to Chicago was to meet his daughter who was returning from an eastern school. Mr. Myers reported it had been unusually dry in his section, corn was spotty, oats crop 20 per cent less than last year and barley about an average crop.

S. L. Rice, manager of The Metamora Elevator Company, Metamora, Ohio, has purchased the stock in The Fostoria Storage & Transfer Elevator Company formerly owned by W. E. Townsend of The Townsend-Ward Company of Buffalo, N. Y. A. T. Ward will remain in charge of the Fostoria plant, which will continue to be operated as a public elevator, where transferring, drying, clipping, cleaning, bleaching and sacking facilities are available to shippers. In addition to this the Company has 250,000 bushels of concrete storage space, bonded under the Government Bonded Warehouse Act, making ideal storage for shippers as full transit privileges are available at Fostoria, and grain may be carried in store for 12 months without loss of through billing. Mr. Ward, who for the past 19 years has been connected with The Townsend-Ward Company, has sold his stock in that company, and in addition to operating the Fostoria Storage & Transfer Elevator Company will manage the Seneca Grain Company at Fostoria, Ohio, which has been formed to do a general grain merchandising business, making a specialty of sacked grain. Fostoria being located on the dividing line between the producing and consuming sections, makes it an ideal location for handling a business

of this kind. Mr. Ward has been actively engaged in the grain business for over 30 years, during which time he has acquired a wide acquaintance among the trade, both east and west. Mr. Rice has been intimately identified with the grain trade for more than 20 years and is president of the Ohio Grain Dealers Association, serving his second term. As manager of The Metamora Elevator Company he is making an enviable reputation as an oats specialist, and the combined interests represented by these two gentlemen should insure a good volume of business through the Fostoria house.

The Rural Grain Company has been incorporated at Bloomington, Ill., with a capital stock of \$100,000. It is a subsidiary of the National Farmers Elevator Company Cooperative, and grain growers who are members of the national organization of 4,000 farmer elevators in 14 states are expected to support this new central market grain selling agency. The company expects to engage upon the co-operative plan in a general wholesale, retail, commission brokerage and export business in grain, hay, feed, seed, and other agricultural products. Sydney J. Cottingham, president of the company has just been admitted to membership in the Chicago Board of Trade. Other officers are D. H. Allen, Delavan, Ill., vice-president; F. W. Hill, Leland, Ill., treasurer; Lawrence Farlow, Bloomington, Ill., secretary. Members of the Board of Directors, besides the officers are, Fred A. Mudge, Peru, Ill.; W. J. Lynch, Green Mountain, Iowa; George L. Potter, Graymont, Ill.; W. F. Dolerer, Rockwell, Iowa; J. G. Merritt, Glidden, Iowa; G. A. Arnold, Sheldon, Iowa.

TRADE NOTES

James H. Spencer, president of the Spencer Construction Company, builders of grain elevators and flour mills, died August 23 at his home in Govans, a suburb of Baltimore. Mr. Spencer organized the Spencer Construction Company about 11 years ago.

Frank H. Blodgett, Inc., Janesville, Wis., has awarded the contract for a monolithic concrete battery of grain bins to the Polk Genung Polk Company of Fort Branch, Ind. The circular bins will be 20 feet in diameter with a capacity of 50,000 bushels. Work has been started.

S. T. Edwards & Co., feed engineers of Chicago, have closed the contract for formula and engineering service for the Nebraska Consolidated Mills of Grand Island, Neb., and the National Chemical Company of Council Bluffs, Iowa. The company also reports that engineers representing large sugar interests of Mexico were in Chicago recently figuring on the development of special machinery for grinding cane products for manufacturing molasses feeds on Edwards Engineering Service Formulas.

In very many sections grain elevator owners are obliged to buy smutty wheat and usually sell it as smutty wheat without treatment. The Wolf-Dawson Wheat Washer, however, manufactured by The Wolf Company of Chambersburg, Pa., enables smutty wheat to be sold at a premium. This company has just sent out a container showing a sample of smutty wheat before and after being treated. The sample was part of No. 2 Red smutty wheat on which there was a dockage of 10 cents a bushel. After passing through the Wolf-Dawson machine it graded No. 2 Red on which a profit was realized of \$100. Full particulars on this machine may be had by writing to the home office at Chambersburg.

USES INDUCTION SYSTEM FOR GRAIN CLEANING

Apparatus for grain cleaning gains greater importance among the elevator's complement of equipment each year. The economies resulting from proper handling are meaning more than ever, and anything which can produce the desired results economically gets close attention. A new system, which has been receiving favorable comment, pro-

vides for the cleaning of grain and works under partial vacuum or induction principles.

All impurities in the form of dust, dirt, chaff, screenings, etc., are separated before the air passes on into the fan; but one fan is used and it handles only pure air. The fans on the grain cleaner can be dispensed with and this system can be applied on any type of grain cleaner by putting the air separator, as shown in cut, ahead of the suction filter; all of the coarse cutting dust is removed and this insures longer life to the cloth straining surface.

The suction filter is built in sections, or cylinders, each cylinder containing 12 bags eight inches in diameter and eight feet long. Each cylinder is good for 2,000 to 2,500 cubic feet of air per minute. The advantages of this system appeal to the careful thinking grain dealer or feed manufacturer, reducing fire hazards, as but one fan is used.

The suction on the air separator is passed through a settling chamber to remove heavy sticks, straws, etc., and the scourings off the grain are separated by the air separator; the final separation of the extremely fine, light material or dust, is made by the suction filter. This also reduces fire hazards going into the fan; by reducing the number of fans you naturally reduce the danger of fire.

The straining fabric on the bags in the suction filter is enclosed in a steel, fireproof casing. There is no wood connected with the Clark System. The offensive air, which generally filters through the ordinary collector from roll exhaust or grain clean-

able and reports from the principal wheat producing countries, exclusive of Russia, indicate an increase of around 165,000,000 bushels in those countries. Rye production in countries representing about 78 per cent of the world's crop, exclusive of Russia, is about 200,000,000 bushels larger than last year, making the supply of bread grains in the Northern Hemisphere outside of the United States and Russia nearly 500,000,000 bushels larger than in 1924. No authentic information is available relative to the amount of wheat that will be available from Russia but crop conditions have been fairly favorable and it seems probable that some wheat will be exported from that country this year. Sales of Russian wheat to Italy and Germany have already been reported and have been a factor in the light export demand which has prevailed recently for American grain.

In spite of the increase of bread grains in the Northern Hemisphere, wheat prices in the United States have declined only moderately from the level of a month ago and all wheat at five important markets averaged about 12 cents lower the first week in September than at the high point about the middle of August, although prices continued about 33 cents higher than at the corresponding time last year. The receipts of Winter wheat have fallen off at the principal markets and August primary receipts this year were only about half as large as last year. Export demand has been slack on account of better European crops this year but the domestic milling demand has

and Soft Winter wheat. Premiums for Hard Winter wheat have been well maintained although high protein types have sold at smaller premiums over the lower protein types than last year. Interior mills have been forced to go into the markets to buy wheat of lower protein content to mix with their local wheat, which in many instances has been very high in protein.

Soft Winter wheat has continued to sell at premiums over the other classes and cash prices of this wheat at St. Louis at this writing are practically the same as a month ago, but the demand recently has become slightly less active as mills have apparently accumulated sufficient stocks for their present needs and the flour demand has been of rather limited volume.

The movement of wheat on the Pacific Coast has been smaller than last year, notwithstanding the increased crop in that territory, as farmers have been holding for higher prices. Exporters have become less active buyers in the Pacific Northwest, having obtained sufficient wheat for their September shipment contracts. \$1.50 per bushel was being offered at Portland for Club wheat for October delivery. Milling demand has fallen off with flour prices out of line for the export market.

CORN RIPENING RAPIDLY

With warm dry weather and excessive sunshine the corn crop has made rapid progress toward maturity through the Central Valley States and in the North. The crop deteriorated in large areas during August on account of dry weather, especially in South Dakota, Nebraska, Indiana, Illinois and Minnesota, and the indicated production of 2,885,000,000 bushels is 65,000,000 bushels below the forecast for a month ago, although it is about 450,000,000 bushels more than were harvested last year. Substantial improvement was noticed in Ohio conditions where prospects are the best in years.

Corn prices have made some recovery from the decline late in August and are now about 8 cents lower than a month ago. The demand for cash corn has been fairly active and current offerings have been readily taken by feeders and local industries. While prices of corn have been nearing an export basis no substantial export sales of last year's crop have been reported. A cargo of corn containing about 225,000 bushels was imported at San Francisco the last week in August and sold in competition with corn from eastern markets.

Oat prices have worked about 4 cents lower than a month ago and are about 9 cents lower than at this time last year but there has been an active demand at current quotations at practically all markets, particularly in the South and Southwest. Prices have reached an export basis and more than 8,500,000 bushels have been exported since July 1. Country marketings have been heavy and primary receipts held around 12,000,000 bushels weekly during August. Commercial stocks have accumulated rapidly and at the first of September were nearly 50,000,000 bushels, as large a supply as on about the first of October last year.

The increased crop of rye in Europe has practically eliminated the export demand for United States rye and with domestic takings sufficient to maintain the market, prices have declined. Lighter receipts at primary markets have reflected the decrease of about 11,000,000 bushels in the United States crop but it is estimated that Germany and Poland will harvest 541,000,000 bushels of rye this year against 370,000,000 bushels last year and compared with a pre-war production of 587,000,000 bushels.

The barley market has held steady with a good demand in markets of the Northcentral West. The export demand in California has slackened materially with English buyers taking less of this grain. Exporters at San Francisco were reported to be working on old sales and not making many new purchases. Choice brewing barley was quoted in that market on September 4 at \$1.80 per hundred pounds.

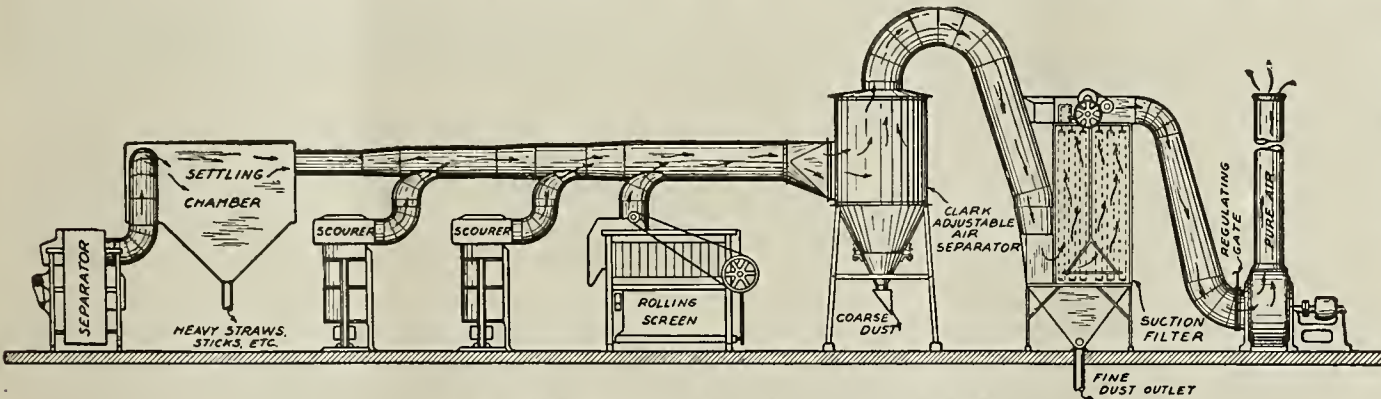


DIAGRAM OF THE CLARK DUST COLLECTING SYSTEM

ers, is dispensed with. The system works under a partial vacuum and it is unnecessary to shut down the Suction Filter for repairs, as the bags can be repaired, or new ones replaced, while the machine is in operation. The vent of the fan can in this case be either returned to the mill in winter to save heat units, or it can be piped outdoors.

The foregoing advantages are assured by the Clark Dust Collecting Company, Inc., Chicago. It is called their 100 per cent efficiency system. The remodeling of the old system to that of the Clark System is not an expensive proposition and the benefits are self evident. Full particulars will be gladly furnished to any interested feed dealer.

THE GRAIN MARKET SITUATION

By G. A. COLLIER

Bureau of Agricultural Economics, U. S. Department of Agriculture

Weather development in the Spring wheat belt both in the United States and Canada and in the corn belt of the United States have kept the market for wheat and corn in a rather unsettled condition since the middle of August. However, the weather has been very favorable for the harvesting of the Spring wheat in both countries and threshing is nearing completion in the Northern Border States and is well under way in Canada.

The condition of Spring wheat in the United States improved slightly during August and a crop of 284,000,000 bushels is forecast by the Department from the September 1 condition against 263,000,000 bushels indicated on August 1. The largest increase was noted in North Dakota where a crop of 115,000,000 bushels was indicated against 102,000,000 bushels on August 1. Reports from the Prairie Provinces of Canada indicate considerable variations in yields and at the first of September it was thought that the crop might exceed the official estimate of 375,000,000 bushels.

European crop conditions have continued favor-

continued active. Commercial stocks increased only slightly during August and on September 8 were less than half as large as a year ago.

Exports of wheat flour since July 1 have totaled about 8,500,000 bushels but a large part of these were of old wheat shipped out during July and the first half of August to supply a temporary export demand which developed because wet harvests were delaying the utilization of the European crop. A substantial increase in the export demand seems improbable under present conditions as the prices of most wheats in the United States are above an export basis. The large European supply has been a greater factor in the Winnipeg market where prices are on a relatively lower level than in United States markets.

Receipts of Spring wheat have increased materially as the new crop movement has gotten under way and recently receipts have been of better quality. The test weight is averaging higher than on early receipts while the protein content is also slightly higher than last year. The bulk of the arrivals of No. 1 Dark Northern wheat at Minneapolis during the first week in September were of a quality to go at the September price to 19 cents over. Twelve per cent protein No. 1 Dark Northern was quoted September 4 at 3-7 cents, over the September price, 12½ per cent, 7-12 cents over, and 13 per cent, 11-16 cents over.

The market for Durum wheat has followed generally the trend of Spring wheat prices with September Durum at Duluth on September 4 about 21½ cents below the September price of Spring wheat at Minneapolis. Good milling qualities of Durum wheat have been in good demand but cars containing smut have been becoming difficult to sell.

The short crop of Winter wheat and the tendency of farmers to hold for better market have been reflected in decreasing receipts of both Hard

NEWS LETTERS

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

ABOUT all that is being discussed just now is the drought and hot weather. It was reported from the lower Ohio River on September 8, that a steamer had to tie up due to a high wind and heavy dust and sand clouds, from farms and sand bars, the dust being so heavy that the pilot couldn't see to navigate the boat through the narrow openings between sand bars. Mountain streams are dried up, small mills haven't boiler water, fire hazard is being greatly increased, and rain was never needed much worse, as there hasn't been a soaking rain since July. Pasture is burned up, resulting in better demand for mill and manufactured feeds and oats. Corn is so high that it is not moving. Fall planting is at a standstill on everything.

Local millers are operating at capacity, with good demand for product. Elevators are stocked up, and could use a lot of extra bin space. The Ballard & Ballard Company is storing grain at Louisville, Cincinnati, Indianapolis and St. Louis, not being able to get nearly as much storage at Louisville as it needs. The Kentucky Public Elevator Company has been refusing long storage, as it is virtually filled up and needs working space.

Grain men report a little better demand on oats, and better prospects for grain this fall and winter. Immediate business isn't so brisk.

Ed Scherer, Bingham Hewett Grain Company, reported fair corn and oat business, with prospects of better volume if the drought isn't broken shortly, as country dealers are being forced into the market.

Henry Freuchtenicht, one of the largest grain, feed and hay men of this section, is attending the Indianapolis state fair and will exhibit draft horses at the Kentucky State Fair, the week of September 14.

The Interstate Commerce Commission, Washington, has suspended from September 1, to December 31, for hearing the proposed increases in freight on grain from 11½ to 16½ cents a hundred from Mount Vernon, Ind., to Louisville, New Albany, Ind., Jeffersonville, and Madison.

The Merchants & Manufacturers Association, Louisville, backed by the Board of Trade, has started a freight survey to find out how much freight could be assured in the Louisville district in event a proposed Federal barge line is placed in operation on the Ohio River, connecting with the present Mississippi River lines, the Inland Waterways Corporation having asked for the information in connection with plans for establishing such a service if there is enough freight available to warrant the outlay. The Government is spending a lot of money on the river to assure a permanent all year boating stage of nine feet. When such a stage is available indications are that there will be plenty of boats available, but private capital can't be interested to any extent in transportation which is shut down by low water, ice, floods, etc., the low water season being the worst drawback.

The Louisville hay market is quite firm, with prices relatively high, and better than last year. In carlots No. 1 Timothy and Clover or Mixed Timothy and Clover are quoted at around \$23 to \$24; with No. 2, from \$1 to \$2 under. Wheat and oat straw quotations are at \$12 to \$13; and rye straw, \$14 to \$15.

Grain is a shade firmer, No. 2 White corn or Yellow at \$1.05 and Mixed, \$1.03, with No. 3, at one cent less. Oats, No. 2, 45 cents; No. 3, 44 cents; seed rye, \$1.25; wheat, \$1.74 to \$1.76. New corn is being cut 30 days early account of severe drought drying it out early, it now being as dry as it would be later in the year.

From prospects for an enormous crop of corn, conditions have changed until the outlook is not nearly so good. In Kentucky it is reported that farmers are getting ready to cut up much late corn for silo feed, realizing that it will not mature, as a result of the severe set back. Fall planting of rye, turf oats, wheat,

etc., hasn't started, and in fact fall grass seeds have not been planted and won't be until there is a period of soaking rain. Reports from many sections of the state and Indiana indicate late corn looking worse than ever before known.

Millfeeds are in better demand as a result of the dry condition of the country and lack of pasturage. Some mills are quoting bran at \$31.50 a ton; brown shorts, \$34.50; gray shorts, \$41; mixed feed \$33; Red Dog, \$47; hominy feed, \$36; cream meal, \$2.25 a hundred; standard meal, \$2.15; corn feed meal, \$43.

A fatal accident occurred at the Baskett Grain Company plant, Henderson, Ky., September 4, when J. L. Hurt, 40 years old, fell 30 feet into a grain bin which he was wrecking, and which had been damaged by fire some months ago.

The Oldham Supply Company, LaGrange, Ky., capital \$10,000, has been chartered to take over the Farmers Supply Company, handling flour, feed, seeds, implements, and general lines of farm supplies, it being a farmer owned organization.

The Jessamine Coal, Feed & Supply Company, Nicholasville, Ky., lost its plant by fire a few days ago, including a quantity of grain, feed, hay, etc., there being insurance on the building, but none on the stock. The concern is operated by Ed Clark and John Robins.

Opinion in traffic and shipping circles here is to the effect that crop movement will be easily handled this year, on account of the excellent condition of the railroads, which have more rolling stock available as a result of heavy building programs over the past several years.

MINNEAPOLIS

EDWIN O. WELDE - CORRESPONDENT

MINNEAPOLIS grain receipts Tuesday, September 8 were 2,897 cars, of which 1,705 were Spring wheat, the largest single day's record in 25 years. The Tuesday total was the result of accumulations over Sunday and Labor Day. The movement this year is earlier than usual, because of the warm summer weather which matured small grains early. Active sales took up much of the heavy receipts and kept the prices firm.

The Exchange Terminal Elevator, with a capacity of 1,250,000 bushels, has been sold to the Commander Elevator Company and the Sheffield Elevator Company. The elevator is at St. Louis Park, on the Minneapolis and St. Louis tracks. E. B. Sheffield, president of the Commander company, announced the deal, involving \$350,000.

Dr. D. A. Coleman, in charge of the Federal grain testing laboratory at Washington, was in Minneapolis recently to study the testing laboratory installed here by the Minnesota Railroad and Warehouse Commission, which is rated one of the best in the country. The laboratory is to be used to determine the protein content of wheat, so that the farmer will receive true value on his grain. A similar laboratory will be established at Duluth.

The Itasca Elevator Company's Calumet Elevator at 25th Avenue S. E. and Omaha tracks was recently destroyed by fire with a \$250,000 loss. Fire marshals believe the fire was started by an overheated bearing in the superstructure. With the four concrete tanks, the whole elevator had a capacity of about 500,000 bushels of grain. It was nearly full of coarse grain, including barley, rye, oats and some wheat. Approximately 90,000 bushels were destroyed.

A second elevator, belonging to the Devereaux Elevator Company caught fire, and a third, the Union Elevator Company's structure, the largest wooden elevator in the world, was saved only by its complete covering of sheet iron, over which firemen poured water and sand from windows high in the air. It caught fire in places nearly a dozen times. Twenty-eight freight cars, standing nearest the burning struc-

ture, were damaged by fire, most of them loaded with grain. Three oil companies nearby were threatened by the fire, and would have been destroyed at a tremendous loss if the Union had caught fire. The Union Elevator has a capacity of 2,500,000 bushels.

The Itasca Elevator Company is a Duluth concern. C. T. Mears is president and J. A. Haglun is the local manager. The loss is covered by insurance.

No embargo, either at grain sampling points or at terminals, will be necessary if the present co-operation in handling the heavy grain movement continues, members of the joint terminal grain committee of the Northwest Regional Advisory Board have advised. Although the grain movement is two weeks ahead of last year, the movement is occurring with unusual smoothness and efficiency, P. J. Coleman, chairman, states. Some time ago, grain cars were filling eight sampling points of northwest roads, where they stopped to be tested, and it appeared for a time that an embargo would be necessary. Since then, railroads and shippers have been working together, holding back cars from these points until the congestion cleared.

Nine-hundred bushels of oats, or 100 bushels to the acre, were threshed from a nine acre field on the farm of Fred Mielk in New Alburn Township near Arlington.

The Occident Elevator Company, Minneapolis, has purchased the Farmers Elevator Company's elevator at Ballantine, Mont.

Daniels Midland Company is building four reinforced concrete grain tanks at 6th Street and Malcolm Avenue, S. E., at a cost of \$100,000.

The Interior Malt & Grain Company, 27th Avenue, S. E., and G. N. tracks, have awarded the contract for construction of six grain tanks.

The Independent Grain Company, Minneapolis, has purchased the elevator of the Melrose Milling Company at Melrose. The elevator will be remodeled and used as a feed manufacturing plant.

Ellis Monroe, wheat buyer, and V. Shipple, chemist, for the National Milling Company, Toledo, were in Minneapolis recently looking after the company's Spring wheat requirements.

W. B. Stowers of the W. B. Stowers Grain Company, Fort Worth, Texas, and Oklahoma City, Okla., was a Minneapolis visitor recently.

Federal crop reporters from the Dakotas, Minnesota and Montana, met in the office of P. L. Kirk, Federal and Minnesota state crop statistician, recently to discuss plans of filing reports and make estimates for the ensuing year. Those present were: J. G. Diamond, Helena, Mont.; H. O. Berbranson, Grand Forks, N. D.; O. L. Dawson, Brookings, S. D.; and J. A. Becker, Washington, D. C.

BUFFALO

ELMER M. HILL - CORRESPONDENT

LOW RATES for all loading periods, which have prevailed in the Great Lakes grain trade, have had a tendency to discourage chartering. Bids of two cents for October loading and 2½ cents for November have failed to bring out any great quantity of tonnage. The majority of vessel owners are holding out for 2½ cents for October and 3 cents for November. Only a limited amount of storage capacity had been lined up early in the month to load at the Head of the Lakes the last half of November to hold at Buffalo at 4 cents. Some shippers have offered 5 cents for early December loading to hold at Buffalo. Vessel owners are asking 5 cents for November loading to hold at Buffalo and 5½ cents for December. Low rates still prevail for boats for immediate use. Medium sized boats to move corn from South Chicago to Buffalo are getting 1½ cents. Boats from Lake Superior to Buffalo are getting 1½ cents while boats from Duluth to Georgian Bay are

getting 1½ cents for September loading; 2 cents for the first half of October and 2¼ cents for the last half of October. From Fort William to Buffalo 1½ cents is offered by shippers.

Grain is coming into ports at the Canadian Head of the Lakes very slowly and another substantial decrease in stocks in elevators at Fort William and Port Arthur was recorded early this month. Shipments have been running a little better than 2,000,000 bushels weekly while receipts at the Twin Canadian ports have been about 750,000 bushels weekly. New grain started arriving early in September and the receipts from now on until the close of the season should show a big increase.

George MacDonald, manager of the Great Lakes Grain Company at Buffalo, has been appointed agent for several Canadian owned steamship lines on the Great Lakes and for approximately 125 Welland Canal sized steamers, the latter being engaged in trade between upper lake ports and Montreal. The lake vessels for which MacDonald is now agent include about 50 bulk freighters owned by the Great Lakes Transportation Company, of Midland, Ont., the Canada Steamship Lines, Ltd., of Montreal and the Mathews Steamship Company, of Toronto, Ont. The vessels of the Eastern Steamship Company, Ltd., and the Bison Steamship Company, are not included in the canal size fleet for which MacDonald has become agent. He also handles motorships of the Interwaterways Lines on the New York State Barge Canal. Mr. MacDonald formerly was in the grain and vessel brokerage business at Fort William, Ont.

According to Melbourne C. Burns, president of the Traders' Feed & Grain Company, of Buffalo, the Maple Leaf Company of Canada, of which he is the local representative, has been looking for a site for a flour mill in Buffalo which would have a 10,000-barrel capacity. The Maple Leaf Company, Ltd., now has mills in Welland and Port Colborne, Ont., but will abandon them, it is reported, because of prohibitive freight rates in Canada. The new mill, if built in Buffalo, will be for export trade.

The Frontier Elevator & Mill Company of Buffalo has increased its capitalization from \$500,000 to \$1,000,000. The corporation is building a new grain elevator in the Buffalo harbor. The original certificate of incorporation was filed in 1886.

Grain receipts at the Port of Buffalo have exceeded the 100,000,000-bushel mark for the 1925 season. This is a slight increase over the corresponding period of last year and it is freely predicted that receipts this season should exceed the figures of a year ago by a wide margin before the last of the winter storage cargoes is in ordinary behind the breakwater and at inside berths. Elevators have been working at capacity and there has been absolutely no danger of a congestion at any time this fall. Some new grain has started to arrive but there will be no great influx of the 1925 harvests until the closing weeks of the month.

New York State will be relatively well situated as to feed crops this winter, according to the combined state and Federal crop report for August issued from the New York State Department of Farms and Markets. The growing conditions of the corn crop (86 per cent) is way above the figures of a year ago. About one-half of the New York State acreage will be cut for silage. The aggregate harvest of oats, barley, rye and buckwheat in the state now promises 44,000 tons more than last year. The state hay crop of approximately 6,001,000 tons is only average and far below last year's crop of 7,241,000 tons with particularly poor yields in the extreme western, southwestern and southeastern counties. The hay crop in central and northern counties is very good. The carryover of hay from last year is large. Beans with an increased acreage over a year ago are developing blight and other diseases and the present forecast of 2,108,000 bushels compared with 1,820,000 bushels for a year ago, is subject to change before the end of the season.

Counsel for the Buffalo Elevating Company (Buffalo Elevator Company), the Great Eastern Elevator Corporation and the Western Elevating Association, Inc., has filed demurrers in United States District Court at Buffalo against indictments returned last May charging violations of the Elkes Act. The demurrer contains a withdrawal of the pleas of not guilty made by the defendants at the time of the indictment, when the court allowed the companies the right to change their pleas, if they so desired. Counsel for the elevating companies demur individually against each count of the indictments alleging giving and receiving rebates and concessions, on the ground that no specific offenses are charged. Trial of the indicted companies is scheduled for October.

The State of New York is not liable for damages to good will of a business whose property is taken over for state purposes when the owner is free to continue the business in some other location, according to a decision of the Court of Appeals of New

York State, which unanimously confirmed a decision of the state court of claims laying down this principle in the case of the Banner Milling Company of Buffalo. The property of the mill in Buffalo Harbor was appropriated under the Barge Canal Terminal Act. The court of claims awarded the company \$235,000 for the property, but refused to make an allowance for the good will of the business. Although the court of claims found the appropriation of the company's property has interrupted the business of the company and damaged the good will, no allowance was made for this loss in the final award.

Late last month the Welland Ship Canal was tied up owing to low water with the result that grain carriers trading between the upper lakes and Montreal were delayed for several days at Port Colborne. The delay at the Lake Erie end of the stream caused a slight congestion at Montreal terminal elevators when the fleet began to arrive early in September.

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

THE most striking feature of the Milwaukee grain trade for the past month was the decisive gain in the supply of barley as compared with last year. No less than four times as much barley was offered in the month of August, 1925, as in the corresponding month a year ago, 2,443,000, as against 616,000 bushels.

Secretary Harry A. Plumb when asked to explain the tremendous supply of barley, and the big increase over the receipts of 1924 for the same month, said that the demand here is very good both from the maltsters and for export. He also stated that there is a large demand for feed barley. All of these receipts, he stated, have been absorbed by the local market with ease.

One of the other striking points in the August grain report is the large receipts of oats. The total this year was well over 3,000,000 bushel mark, while last year for the same month the oats receipts were only a little more than 2,000,000 bushels.

The report of large wheat transfer business from the Southwest which was current a few weeks ago evidently did not materialize as expected, judging from the wheat movement figures supplied by the local Chamber. The wheat movement for the past month was only a little over 1,000,000 bushels, while last year for August the total wheat receipts passed the 2,500,000 bushel mark.

The Donahue & Stratton Company has always specialized in this movement of buying up winter wheat in the Southwest and shipping it out via the Milwaukee port. This year the lake shipments of wheat were a little better than 1,000,000 bushels, but they did not approximate the millions of bushels which have been shipped by this route in past years.

E. A. Lalk, general agent of the Chicago, Milwaukee and St. Paul Railroad, reports that their grain traffic is now running a little less than last year. He asserts that apparently the recent declines in grain and the relatively low prices in some kinds of grain seem to be discouraging to the farmers and that they are not selling as liberally this year as formerly.

No traffic congestion of any kind has been reported on the Milwaukee road, according to Mr. Lalk. He states that cars are being supplied promptly and that no tieup is in sight at the present time.

Despite the huge barley trade reported by the Milwaukee grain statistical bureau in the secretary's office, the barley is not piling up in storage houses. The supply of barley in store on the fifth of September was less than 200,000 bushels.

Oats is apparently the only grain that is being stored to any great extent, the figures passing the 1,307,000-bushel mark. The supply of rye at Milwaukee at the opening of September was only the paltry amount of 10,000 bushels.

One of Milwaukee's oldest brewery landmarks is being torn down. The Blatz Elevator "A" at Johnson Street and Broadway, which was erected in 1885, is making way for the new progress of the city. This elevator was a frame and corrugated iron building, eight stories in height, which had a capacity of about 350,000 bushels. The structure had not been used at all since the advent of prohibition.

The immense Schlitz brewery buildings are still largely intact as in the palmiest beer days, officials apparently believing that the time may come when they will be used again. The Pabst corporation has remodeled some of its buildings for manufacturing purposes.

Prof. R. A. Moore at the College of Agriculture at Madison, Wis., has issued a statement that despite

all the recent talk of dry weather, that Wisconsin will have one of the finest corn crops in its history. He predicts that the state yield should be some figure around 100,000,000 bushels.

The outlook in Wisconsin is that the hot summer weather will continue for two or three weeks more. If this proves to be true, the corn crop should be safe even to the upper counties of the state along the Michigan line.

The September rate of interest on advances at the Milwaukee Chamber has again been fixed at 6 per cent. This is the same rate which has prevailed for many months, indicating a stable money market.

In barley and oats and rye, the threshing period in Wisconsin is well along and in general yields are believed to be very good. Near Stevens Point in the central part of the state, P. G. Wentworth harvested 502 bushels of oats from a field of seven acres. This was an average of about 71.8 bushels to the acre. This is a sample of the high yield reports which have been coming from many sections of the state.

From the western part of the state near Platteville, reports of 70 bushels of corn to the acre are filtering in. One farmer, George Johns, reported corn with 26 rows of kernels and 50 kernels to the row. These ears are of enormous size. Corn 10, 12 and 14 feet high is reported from many sections of the state, due to the ideal growing conditions which prevailed for many weeks.

Among the new grain corporations organized in the state, as reported by the secretary of the state at Madison, is the L. Bartlett & Son Grain Company of Milwaukee. This company has been started with \$30,000 of capital stock which is divided into 300 shares of a par value of \$100 each.

The three incorporators of the concern are well known grain men of the city—H. H. Peterson, E. H. Hiemke and H. E. Peterson.

The La Budde Feed & Grain Company is also branching out in view of the large grain business which is expected in Milwaukee during the fall season. The company's grain department has been enlarged by placing James T. Mallon in charge of the barley and rye business of the concern.

The entire grain department of the company has been and will continue under the management of Carl A. Houlton.

Mr. Mallon has long been known at the Milwaukee Chamber. He will begin his services with the La Budde forces in September.

The Armour Grain Company is back in full tilt at the Milwaukee grain market after the company went back from the co-operative company known as the Grain Marketing Company to the original owners. The Armour people have again asked for membership in the Milwaukee board and this has been provided by the Board of Directors of the Milwaukee Chamber of Commerce.

Among the registered storage houses as designated by the Board of Directors of the Chamber of Commerce are Elevator "E" with capacity of 700,000 bushels for the Armour Grain Company. The Donahue-Stratton Company has also registered two elevators, the Kinnickinnic house with 1,000,000 bushels of capacity and the Rialto Elevator, also with 1,000,000 bushels' capacity.

The farmers are not faring as well as last year, according to reports on grain prices which are compiled by the Milwaukee Chamber of Commerce. These reports show, for instance, that oats of the No. 3 grade is bringing only 40 to 41 cents a bushel now as compared with a price of 46 to 47 cents for the same date a year ago. The seller of barley is also hit this year, judging by the Milwaukee prices, the market for No. 2 now ruling at 72 to 78 cents a bushel against a range of 83 to 88 cents a bushel for the same grade a year ago. The No. 3 Yellow corn is now selling in the Milwaukee market for 99 cents a bushel as compared with a price of \$1.21 for the same grade a year ago. The wheat seller is really the one in Clover; No. 1 Dark Northern is now selling at \$1.60 to \$1.71 as compared with a quoted market of \$1.32 to \$1.40 for the same grade a year ago.

Quite a large number of traffic men of Milwaukee are in Chicago attending the rate hearing where a 5 per cent increase in rates is demanded by a large number of railroads. The Transportation Committee of the Association of Commerce voted to have representatives at the hearing. A stubborn fight is expected by the Milwaukee rate men. It is regarded as virtually certain that the Milwaukee traffic leaders will take a step in opposition to the proposed rate increase.

The Commerce Commission has accepted the protest of the Milwaukee Chamber of Commerce against proposed new rate schedules on grain and grain products and flax and millet which had been planned to go into effect shortly. The hearing has now been postponed to November 29, according to John L.

Bowlus, manager of the Traffic Department of the Milwaukee Chamber. The proposed tariffs would have increased rates on these products from Iowa, Minnesota, Wisconsin and surrounding points from 1 to 2½ cents per hundredweight. A number of South Dakota and Minnesota organizations, farmers and commercial clubs, were also fighting this increase. The Commission will notify Mr. Bowlus soon of the date for hearings at which the subject will be taken up again.

Among the new members of the Milwaukee Chamber is Milton D. Marlett. The membership of William A. Zahn has been transferred.

The Milwaukee Harbor Commission, which has been working here for years to develop a fine harbor, to take care of the grain trade and the growing commerce in other lines, was much elated by the report given on progress by two visitors from Toledo.

These visitors were George Hardy and W. E. Griffiths who came to Milwaukee to make an intensive study of harbor facilities. They stated that the Milwaukee Harbor is many years ahead of any other port on the Great Lakes. These members of the harbor board at Toledo declared that the people of Milwaukee should be congratulated on the fine progress being made.

PHILADELPHIA

WM. A. LOCKYER CORRESPONDENT

STOCKHOLDERS of the Philadelphia Grain Elevator Company, a subsidiary of the Reading Company, have just voted to increase the capitalization of the company from \$480,000 to \$1,500,000 and authorized the creation of a \$3,000,000 mortgage debt for the purpose of financing the construction of the new export grain elevator which the company is to build here. Action was taken at a special meeting at which time the par value of the company's stock, most of which is owned by the Reading Company, was raised from \$40 to \$50. According to officials of the company, the new elevator will have a capacity of 2,500,000 bushels, or exactly 1,000,000 bushels more than the company's present Port Richmond Elevator. The new structure will be erected on a site immediately adjoining the present elevator. It will be of concrete construction and will be equipped with all the latest machinery and grain handling appliances. Its cost has been estimated at approximately \$3,000,000 and when completed will give the Port of Philadelphia grain storage facilities for about 7,500,000 bushels. The company has just asked for revised bids on the structure.

Local grain interests are greatly pleased at the latest action taken by the company. There has been a long felt need for an additional grain elevator here and shipping, grain and other interests have repeatedly urged the Reading Company to take the necessary steps to augment its facilities for the handling of export grain. While it has long been agitated and the company has indicated from time to time that it planned to do something, it has only been within the last few months that anything definite has been forthcoming which would seem to indicate that the company actually planned to erect a new structure.

The Commercial Exchange, of which Hubert J. Horan is president, and representing the grain, flour and feed interests, has been the most active sponsor of the new elevator, and in this movement it has had the active support of such organizations as the Bourse, Board of Trade, Maritime Exchange, Port of Philadelphia Ocean Traffic Bureau and the Chamber of Commerce. The present elevator of the Reading Company has a delivering capacity of 600,000 bushels every 10 hours, but it is expected that the new structure will greatly exceed this.

Movement of flour and grain through the Port of Philadelphia for the month of August, according to figures of the Commercial Exchange, was as follows:

Receipts:—Flour, 204,567 barrels; wheat, 1,281,852 bushels; corn, 43,121 bushels; oats, 1,158,330 bushels; rye, 4,824 bushels; barley, 54,440 bushels.

Exports:—Flour, 8,629 barrels; wheat, 1,148,185 bushels; oats, 700,080 bushels; barley, 73,379 bushels.

For the eight months of this year, the movement has been as follows:

Receipts:—Flour, 1,557,841 barrels; wheat, 22,681,898 bushels; corn, 478,296 bushels; oats, 4,843,791 bushels; rye, 1,204,866 bushels; barley, 631,136 bushels.

Exports:—Flour, 198,605 barrels; wheat, 23,176,395 bushels; corn, 127,682 bushels; oats, 3,441,135 bushels; rye, 1,314,050 bushels; barley, 702,830 bushels.

Harvey C. Miller, president of the Philadelphia Tidewater Terminal and well known in elevator and grain circles, this month assumed control of the huge army base and municipal piers at Norfolk, Va., and will operate them in conjunction with the terminal here as well as the Boston Tidewater Terminal and the

Brooklyn Tidewater Terminal, all of which were constructed by the Quartermasters' Department of the United States Army during the war. The Norfolk piers can accommodate 33 steamships at one time and have direct connections with nine of the principal railroads of the South. Mr. Miller was for many years head of L. F. Miller & Sons, grain and feed dealers here and operators of the Keystone Elevator at North Philadelphia, which recently was turned over to the Pennsylvania Railroad.

On September 1, last, there were stored in Philadelphia warehouses 93,530 barrels of flour; 1,312,922 bushels of wheat; 31,577 bushels of corn; 487,043 bushels of oats; 4,382 bushels of rye, and 6,101 bushels of barley.

Pennsylvania farmers are said to be harvesting one of the best Winter wheat crops in the history of the state. The quality has never been better and the estimated average yield is about 20 bushels per acre as compared with 17.8 bushels, the five-year average. The total yield is estimated at 24,500,000 bushels, which is about 5,000,000 bushels greater than a year ago.

The many friends of Walter Passmore, grain and feed dealer of Nottingham, Pa., are congratulating him upon his recent recovery from a long illness in the course of which he underwent a serious operation in a local hospital.

The grain and feed firm of W. P. Brazer & Sons has retired from business. W. P. Brazer, founder and long a factor in the local trade, retired several months ago, since which time Howard F. Brazer, a son, handled the firm's accounts. The latter has recently located at Miami, Fla., and the business has since been liquidated.

Jacob B. Pultz, head of the firm of J. B. Pultz & Co., has returned after spending the entire summer with members of his family in Connecticut.

Hubert J. Horan, prominent flour leader and president of the Commercial Exchange; Walter T. Roach, local manager of the International Mercantile Marine Company, and Wilme Wood, of the American-Hawaiian Steamship Company, have been made members of the committee which is to finance the operations of the Port of Philadelphia Ocean Traffic Bureau during the ensuing year.

Local grain interests are expected to be strongly represented at the annual meeting of the Pennsylvania Millers State Association which is to be held at Atlantic City, N. J., September 23, 24 and 25. An effort is to be made at this meeting to bring next year's session to Philadelphia at the time of the Sesqui-Centennial International Exposition. The Pennsylvania millers have been meeting annually since 1878.

KANSAS CITY

B. S. BROWN - CORRESPONDENT

THE fluctuations in prices of grain which have prevailed for the past several weeks appear to have been successful in holding the trading in this territory in grains and the various mill products down to a point where it is termed slow, which has been the case for the better part of the past three months in this section. Of course there has been more or less trading in all commodities all along, but the gross business done in this section is said to have been far below that which may be expected here at this season of the year, especially with the new crops of wheat coming in. Demand for flour is said to be lighter than usual, which condition is attributed to the unsettled market conditions.

An addition to the Wyandotte Elevator, Eighteenth Street and Kansas Avenue, Kansas City, Kan., was recently completed. The addition consists of 42 new concrete storage bins and a head house, and increases the storage capacity of the elevator from 1,750,000 bushels to 2,500,000 bushels. It is estimated to have represented an investment of approximately \$300,000, and was ready for service shortly after August 15. Oscar T. Cook is manager of the elevator.

A petition was filed in the circuit court here on August 28, requesting that court to restrain the operations of John E. Weber in his dealings in stocks, bonds and the general marketing of grains and numerous other commodities. Two other companies, the Mutual Grain Company and John E. Weber & Co., operating in the Elmhurst Building, said to be also operated by Weber, were asked to be included in the restraining order of the court, if granted. The petition further asked that a receiver be appointed by the court to close out the several businesses of Weber.

The plaintiff, B. L. Young of Westphalia, Kan., ac-

cording to the petition, invested with Weber to buy lard on advancing hog markets, making marginal advances; Young states he had a net profit of \$639 when the market advanced in his favor, but that Weber had failed to pay the plaintiff the amount due him from the operations and refused to see him in reference to the deal.

An investigation was made some time ago by C. E. Buchner, assistant manager of the Better Business Bureau, to which others of Weber's alleged victims had applied for aid.

Weber's license to deal in securities in the State of Missouri was revoked by the Missouri blue sky department on May 20, 1924. It was declared that Weber violated the state laws in many ways, such as the rental of stocks and by various other such practices.

The petition was heard by Judge Samuel A. Dew of the assignment division of the court on August 31, and it is said that the United States postal authorities are now investigating the operations of Weber and his two companies.

The Washburn-Crosby Company announced here on August 15, that an additional 6,000-barrel flour plant will be started immediately adjacent to its present Kansas City mill of 3,000 barrels' capacity.

The announcement predicts an increase in Kansas City's milling capacity to 31,350 barrels, an increase of 66 per cent here in the last five years; it is also said that Kansas City men now own an additional capacity of 17,300 barrels in Kansas towns, local owners controlling and operating this outside milling capacity.

It is apparently the consensus of opinion among local millers that the rapid growth of milling interests in Kansas City will soon enable that city to equal the capacity of the mills in Buffalo, N. Y., and it is predicted here that Minneapolis is doomed to lose its present claim to first place in flour production, and that the fight for world supremacy will be left to Kansas City and Buffalo to settle.

DULUTH

S. J. SCHULTE - CORRESPONDENT

SEVERAL changes in memberships and business connections were reported on the Duluth Board of Trade recently, that being accepted as evidence that the trade is getting all set for a heavy fall marketing campaign. A membership of Watson S. Moore was transferred to Carl Driesbach, that being reported to have been a step in the reorganization of Mr. Moore's firm. Mr. Driesbach has been one of Mr. Moore's right hand men on this market for many years. The membership of Warren S. Moore has been transferred to H. Douglas Palmer of Becher, Barrett & Lockerby. Other changes included the transfer of the membership of C. E. Thayer to G. G. Ireys of Minneapolis; the transfer of the membership of Julius B. Seim to E. H. Anderson of the Benson-Quinn Company; transfer of the membership of George Gackle to S. M. Sorenson of Minneapolis and Charles Dickinson to H. E. Schaefer of the Peavey Company, Minneapolis; Hanson to Thomas C. McInnis; H. W. Hillier to E. J. Morris of the Quinn-Shepherdson Company, Patrick Mallon to A. R. McRae of the Barnum Grain Company and of J. E. Allen to R. C. Schiller. W. W. Lyness of Fessenden, N. D., was elected a member of the Board of Trade.

Elevator officials at Duluth and Superior have given evidence of their ability to meet emergencies in taking care of heavy daily rushes of wheat and coarse grains from the country. Though delays have been necessarily experienced in obtaining grades on cars on track from the state inspection department, they have been at a minimum, so that demurrage charges on cars have not piled up so far to any extent. The general impression in trade circles is that the regional committee supervising transportation conditions will find it necessary to issue an order prohibiting the holding of cars at sampling points for orders as to destinations while the rush is on. That course was taken last fall during the rush period and it contributed towards the prevention of prolonged embargoes by the railroads against acceptances of grain at country points for deliveries at the terminals. The effect of the holdings over of cars at sampling points was shown one day early this month when of 1,514 cars reported on track, only 986 were inspected. The remaining cars were held over apart from a proportion ordered to Minneapolis.

Commission men and elevator interests on this market have been treated to a pleasant surprise in the quality of the Spring wheat that has been marketed here so far. Where at the beginning of the movement some cars of wheat running around 55 pounds in weight were received, later arrivals showed progressive improvement in grading a percentage of the grain running at around the 60-pound mark has

been coming to hand and the average weight of the current daily receipts has been put at 58 pounds. As a result of the grain running high in protein, good premiums have been paid by millers. Grain men on this market are feeling very cheerful these days as they are looking for steady demand from both north-west and middle west millers during the season, the latter demand being for mixing purposes. It is considered gratifying that such should have been the case in view of the disappointing call so far from export circles. Provided the claims that this country will be largely on a domestic basis during the present crop year are realized, the maintenance of a profitable level of quotations to farmers is looked for. That is conceded, however, to be dependent to a great extent upon some regulation in the run of grain to the markets, as should a mad rush be maintained up to the close of navigation their absorptive ability to take care of it is questioned. The extent of the early movement of Spring wheat to the market is shown in receipts at Duluth elevators from August 1 to September 8, aggregating 5,530,914 bushels against only 712,467 bushels up to the same time last year. Durum receipts were 1,468,185 bushels against 1,901,969 bushels last year. Receipts of all grains at the elevators here up to that date were 18,662,746 bushels as against 12,510,897 bushels last year. The barley movement was especially active as a result of good export buying, its receipts at the terminals coming to 4,829,564 bushels against only 1,450,218 bushels last year. Trade in oats also made a favorable showing at 3,363,902 bushels against 3,801,750 bushels last year. Operators have found reason to complain of the slow ordering out of wheat for eastern delivery thus far and had it not been for the good movement in barley and oats stocks in the Head of the Lakes elevators would have accumulated much more rapidly than they have. As it is, supplies in hand mounted from a low of around 6,000,00 bushels just before the new grain started to move to nearly 16,000,000 bushels on September 8. Though the rated capacity of the houses here is 35,000,000 bushels it is felt that special efforts must be made to get grain out before the close of navigation, or a tieup in storage facilities will come about later. Thus far only moderate boat space has been taken to move Durum and other wheats east, but operators are deriving satisfaction from the eastern inquiry for late September and first half of October shipments coming in. At this writing space for wheat for Buffalo delivery is still being offered at 1 3/4 cents a bushel.

Movement of new-crop Spring wheat and Durum to this market has so far exceeded expectations of operators and the great surprise to the trade is that prices had not receded in view of the rush of grain to the terminal markets and the small interest in export quarters.

All the elevators at Duluth and Superior have been working with full crews during the last three weeks and when the vessel loading-out rush sets in, they are looking forward to the demands being made upon them in receiving cars of grain and loading out boats being more than they can hope to cope with comfortably. The Occident Elevator has been busy upon Spring wheat for shipment to its Buffalo connection, the Russell-Miller Milling Company. The Globe Elevator Company has handled a considerable quantity of barley for export so far this fall. The Itasca Elevator Company, A. D. Thomson & Co., and the Consolidated Elevator Company have also been active in that line. Foreign interest in barley was claimed by specialists to have been the best in their experiences, and they are assuming that considerable of a boost will be given to sowing that grain next spring as a result.

Trade in oats was on a broad scale on this market up till recently but with the apparent settling of an accumulated interest in them, the price has fallen off. Stocks of oats have been accumulating in the elevators here lately, and they now aggregate 5,600,000. The heavy supplies of oats carried on this market last spring were largely worked off and operators are banking upon a renewal of foreign buying in them in the near future.

Holders of around 9,000,000 bushels of rye in the elevators here last spring had the satisfaction of working them off before the big break came in their market early last summer. Though trade in rye has been below par during the last few weeks, operators are banking upon a revival in foreign demand one of these fine days just as happened last spring and summer when its spot quotation was moved up from 61 cents to a top of \$1.70. Some operators here made good turns on that grain in the course of its market upturn.

John T. Shanahan, buyer for the Niagara Falls Milling Company, and several years ago a member of the Duluth Board of Trade, was a recent visitor on this market. The large Buffalo mills have been good buyers of Spring wheat so far this fall and have been ready to pay substantial premiums for grain carrying high protein values, Mr. Shanahan said. In his opinion, it is problematical how long that call will be maintained at around its present basis. The

opinion that plenty of good Spring wheat will be available this season prevails down that way and that is leading the companies to exercise some caution in increasing their holdings, he asserted.

Frank Tenney of the Tenney Company has returned to this market from the East to take charge of his house's fall business. He asserted that he had found it necessary to again concentrate upon the grain trade during the fall months after having for some time devoted his time to the conduct of his late father's rubber business in the East.

R. M. White of the White Grain Company has returned from an inspection trip over the Red River Valley. As he saw it, farmers over that ground should find themselves in good shape this fall as they have harvested large crops of wheat and coarse grains which they have been marketing to some extent at the present level of prices. The extension of the dairying industry is going to afford dealers the opportunity to market considerable feeds through it this fall and winter. He looks for progressive improvement in farmers' conditions in consequence.

Strong expressions of condolence were tendered to George G. Barnum, Sr., over the severe loss he sustained in the death of his wife on September 10. Mr. and Mrs. Barnum celebrated their fiftieth wedding anniversary some time ago. Mr. Barnum is still hale and hearty in his seventy-eighth year, and he continues to take an active interest in the conduct of his grain business.

Operators at Duluth have been complaining of the slow demand for Durum from exporters so far this season, and the amount taken so far by millers for making macaroni flour, has been disappointing. Though Durum to a great extent escaped damage from the extreme heat spell of July, considerable cars of smutty grain have been coming on this market. Specialists in the Durum market express confidence, however, regarding the probability of a liberal Italian demand for it and macaroni flour developing later on this fall after that country has been extended credits more freely.

TOLEDO

S. M. BENDER CORRESPONDENT

OHIO testers report the best prospects in years for corn providing rains come soon to maintain the present condition. Farmers are not feeding as heavily as a year ago so it is likely there will be a large run of corn if prices are satisfactory. Oats in the fields were injured some by rains after harvest and made many lower quality than they would have been otherwise.

Grain receipts in this market for August were as follows: 518 cars of wheat, 158 cars of corn, 1,084 cars of oats, 10 cars of rye and 10 cars of barley. Total cars inspected, 1,780. By lake steamer, *Griffin*, 98,000 bushels of No. 1 Northern Spring wheat, and by steamer, *Recor*, 4,335 bushels of Mixed Red and White wheat, smutty.

Kent Keilholtz of Southworth & Co., made a flying trip to California during the past month and reported the best corn he saw was in Ohio and Indiana rather than in the big corn states of the West. Californians are the best boosters in the world and the best part of it is they really believe everything they tell you. San Francisco is trying hard to get the publicity that Los Angeles does but is finding it difficult with a smaller growth in population.

Fred Jaeger of J. F. Zahm & Co., remarks it won't be long until he can bring down the old office coat or what the moths have left of it and wear it on the floor for the boys to fill with samples.

Samples of the new wheat according to laboratory tests made by mills, contains the highest protein content of any wheat in recent years. Much of it runs 12 per cent or better which is exceptionally high for Soft wheat.

The Federal Mill & Elevator Company, Inc., Lockport, N. Y., will discontinue the use of their plant at Mansfield, Ohio, as soon as it can be leased and centralize all their operations at their main plant at Lockport.

J. D. Miller of Millersburg, Ohio, says that he has never seen so little wheat moving this time of year in 35 years. Farmers are all looking for \$2 wheat. Flour can be sold in many places but the wheat cannot be bought.

The scarcity of Soft wheat at the terminal markets has forced premiums higher and brought about keen competition among mills and dealers for the receipts.

There is an excellent milling demand for wheat in most quarters and price appears to be the smallest matter. Cash corn and oats on spot have brought fair prices all month considering the break in the market. Buyers have been steady bidders for grain on the tables.

Edgar Thierwechter of the Emery Thierwechter Company, Oak Harbor, Ohio, has had his family at a summer home on Lake Erie near Camp Perry for the past two months. Oak Harbor made an ideal vacation spot.

Jack Delaney, traveling representative for Thomson-McKinnon, Chicago grain firm, relieved Jim Mattimore during the month while he was on his vacation.

The Toledo branch of the Sheets Elevator Company, Cleveland, Ohio, has had electric power installed and is now in operation according to George Eicher, local manager.

Henry Hirsch, of the Henry Hirsch Seed Company, this city, was last heard from while in Hawaii. He describes the Hula Hula's as all they are cracked up to be, but must behave as he has his wife along. Archie Gassaway, secretary of the Exchange, heard from him during the past month.

Pronounced activity in Clover seed and in fact all seeds has been a feature of the last month. Prices have fluctuated in a wide range with changing sentiment and conditions as regards the new crop. Traders were offering Clover freely last week on reports that the crop would be about normal and yields higher than anticipated. This week offerings have dried up and buyers have become more aggressive. Considerable profit-taking has been noted on bulges and buying support increases with every setback. Many dealers are of the opinion that the crop will be shorter than present conditions would appear to indicate. If it is, then the question is whether the price now discounts the predicted shortage. Many farmers in Michigan are said to be cutting their Clover for hay as they will need that worse than they do the seed. Fields that have been examined show the heads well filled. Prospects in that state are better than in Ohio or Indiana according to those who have covered the state. Alsike has shown independent strength though not as strongly as Red Clover. It is thought in many quarters it will work to a closer discount as compared with Clover as the season advances. Stocks of new and old seed are not large and should help the price trend eventually.

Timothy has not shown much pep due to increased sales for those who were taking their loss and also hedging by dealers who have bought cash seed. The crop according to latest figures will be at least 25 per cent less than last year due to dry weather this summer. The carryover was 15 per cent of last year's crop in dealers and farmers hands.

Hay has passed a month of dull trade and practically featureless as to news. Prices have been marked higher but the demand is slow and buyers waiting for a break. Farmers are expecting too much for their hay and dealers are not anxious to pay more than the hay will bring with business so dull. Conditions do not warrant any encouragement to those who are holding as the predicted shortage has been well discounted and prices may break when receipts increase. The recent dry weather over this section may prove a price stimulant but its effect will be only temporary, according to dealers in this market.

W. J. DeWinter, in charge of the export department of the National Milling Company, returned from an extensive trip abroad and tells of many interesting experiences over there in addition to opening new connections for the mill. He is a native of Holland and spent some time there. He returns with a first hand account of the export situation.

William Carr, better known as Bill, a vice-president of the Toledo Trust Company, celebrated his fifty-second birthday anniversary during the month. Bill can remember when many of the younger men of the exchange started in as messenger boys, at from two to four dollars a week.

The first sample of new Red Clover received last month graded number two on account of the strong percentage of buckthorn. Sweet Clover, shrunken Clover and broken straws.

Bill Cummings of J. F. Zahm & Co. and Joe Doering of Southworth & Co., attended the Michigan Bean Jobbers convention held in Detroit, Mich., September 11.

The extreme dry weather has made millfeeds more active. Middlings especially have been selling way above bran, and mixers have been excellent buyers. Coarse grain feeds came back after the recent break and were marked up a dollar last week. Feeding will probably not be as heavy as last year but may be offset by the drouth conditions prevailing here and in other nearby states. Most orders are for immediate shipment showing that feeds are needed at once.

Production is not large enough to make accumulations large and this is another favorable factor. Pastures are dried up in many localities and feeds will be needed to take care of the shortage.

CINCINNATI

HARRY A. KENNY - CORRESPONDENT

LACK of receipts virtually held trading in at a minimum in the local grain and hay market the past month. Prices fluctuated throughout the month, but as a rule all offerings were readily absorbed at satisfactory prices to the seller. Receipts of hay, wheat, rye and oats for the month were less than for the corresponding period of last year. Shelled and ear corn, as well as feed receipts were slightly in excess, but the margin was not large. Dealers attributed the light receipts to the fact that farmers are inclined to hold their grain for higher prices and that a shortage of good quality hay exists throughout the country. A good demand for milling wheat, featured the market, but many buyers were unable to get their orders filled. Good quality oats were sought by the race-horse interests, at Coney Island and Latonia.

Stocks of grain in first hands here, September 9, were as follows: Wheat, 868,622 bushels; corn, 51,110 bushels; oats, 65,560 bushels and rye, 4,300 bushels.

Representatives of the United States Department of Agriculture were in this city recently for a conference with officers of the Cincinnati Grain & Hay Exchange, with a view of obtaining the organization's support in enforcing the Pure Food and Drug Act with reference to raw grains. The representatives of the Government were J. S. Murphy and W. L. Ingals. Following the conference, A. M. Braun, president of the Exchange, announced the appointment of a committee to follow out the plan for enforcement of the Pure Food Act, as outlined by the Government grain supervisors. Members of the committee are: Robert L. Early, Ralph H. Brown, H. E. Richter, J. A. Hallam, chief grain inspector of the Exchange, and D. J. Schuh, executive secretary.

Earl Skidmore, secretary of the Perin-Brouse-Skidmore Grain & Milling Company is at Daytona, Fla., making preparations for the establishment of a branch plant of the company in that city.

The Ohio-Indiana Hay Company, headed by R. T. Pierce, has applied for membership in the Cincinnati Grain & Hay Exchange. Mr. Pierce already has purchased a certificate of the organization from Frank Maguire. The company, the latest addition to the hay trade here, has established an office in the Stern Building, Third and Vine Streets. Mr. Pierce has had many years experience in the business.

Robert Waldie, warehouse examiner of the United States Department of Agriculture was in this city recently to inspect the grain warehouses of the Early & Daniel Company and the Wiedemann Brewing Company at Newport, Ky., which are operated under the Federal Warehouse Act. He said that he found everything functioning in accordance with the law.

NEW YORK

C. K. TRAFTON - CORRESPONDENT

ONE of the oldest firms in the retail distributing of grain, hay, feed, etc., in this city, William Hall Company, which was started by the late William Hall over 40 years ago, went out of business August 31. In recent years the business was conducted by the sons of William Hall, W. S. and R. W. Hall. The dissolution of this concern was finally hastened by the serious illness of the senior partner, W. S. Hall.

Still it was the assumption that the firm had primarily decided to retire because of the unsatisfactory conditions of the trade, chiefly caused by the decrease in the employment of horses, consequent upon the substitution of automobiles and trucks.

Charles B. Gaffney, who has been with the firm for 23 years largely as collector, salesman and buyer—having represented the firm on the N. Y. Produce Exchange where he had established an excellent record, has gone with the old distributing house of Thomas M. Blake. The many friends of Mr. Gaffney predict a successful future in his new and broader field.

Gerald Earle, of the firm of Earle & Stoddart, Inc., well known exporters chiefly to Great Britain, was

welcome back on 'Change late in August after a three months' pleasure trip abroad, largely spent in visiting his relatives in England and Scotland.

Alfred T. Martin, who was once prominent in the local grain trade, and who still retains his membership in the N. Y. Produce Exchange although now one of the leading spirits in the big commission house of Bartlett Frazier Co., Chicago, was warmly welcomed by his numerous friends on 'Change while on his way to sail by steamer *Mauretania* for a six weeks' pleasure trip in Europe, accompanied by Mrs. Martin. Before sailing, Mr. Martin said that the sentiment among the trade generally was decidedly mixed regarding wheat, but on the whole, it was believed that prices would probably move downward, chiefly because of the contention that the production of Spring wheat was bigger than anticipated both here and in Canada. Hence he assumed that depression would be caused by larger hedge selling both in our markets and in Canada. Because of the bigger surplus in Canada, and the resulting lower cost, coupled with our meagre exporting surplus, he looks for only light exports from this country. Despite the facts described, he anticipates more firmness in our markets later in the season or after the rush of new Spring wheat to market has terminated.

Wm. H. Kipp, who for years has been a member of the Produce Exchange, formerly as buyer of grain, feed, etc., for the old jobbing and distributing house of Wm. H. Payne & Son, and subsequently held a similar position with the old firm of Geo. N. Rhinehart & Co., has severed that connection and gone into the life insurance field.

F. J. Lingham, one of the leading spirits in the Federal Milling Company, Lockport, N. Y., was visiting friends in the local market early this month.

W. F. Mealiff, of the Kensington Elevator Company, Chicago, paid a short visit to friends in the local grain market early in September. He came east accompanied by Mr. and Mrs. Millen to meet their daughter, Miss Millen, who had just returned from Europe. Immediately thereafter the young lady became the bride of Mr. Mealiff, after which they went on their honeymoon trip through New England via automobile.

Sir H. T. Robson, of Paul, Robson & Co., large grain importers of London, received a warm welcome from friends and associates on the N. Y. Exchange of which he is a member, after a month's trip to northwestern grain markets, going as far as Winnipeg. He is of the opinion that the total production of wheat in the Dominion will be between 385,000,000 and 400,000,000 bushels. In his judgment a liberal supply will also be received from Russia, depending on transportation facilities.

I. Panzer, of the Superintendence Company, which supervises the loading and discharging of grain cargoes, was welcomed back on 'Change late in August after a two months' trip in Europe.

The many friends on 'Change of Watson S. Moore and his two sons, of the W. S. Moore Grain Company, of Duluth, Chicago and New York, which firm was recently in financial difficulties, has succeeded in making a satisfactory arrangement with the creditors. Nevertheless they learned with much regret that Watson S. Moore and his son, Watson W., had resigned as members of the Exchange. Mr. Moore has a host of warm friends here, and his absence will be keenly felt.

John Moonan, aged 73, has passed away. Mr. Moonan has long been a member of the N. Y. Produce Exchange and was long a popular and well known member of the hay, grain and feed trade as a jobber. For the past year he has been inactive as his health was poor.

William C. Mott, who has for years been well and favorably known in the grain market, formerly as N. Y. representative of the Nye & Jenks Grain Company, and subsequently associated with the Grain Growers Export Company, Inc., but recently becoming secretary and treasurer of the Smith-Murphy Company, Inc., of N. Y., received a hearty welcome when he came back to his post on 'Change after a two months' trip to Europe during which he visited leading members of the trade and effected gratifying connections.

James P. Grant, an old and esteemed member of the cottonseed oil and lard trades, has opened a department for trading in grain futures. His correspondents on the Chicago Board of Trade are Grant, Starrels & Co. He is represented in the grain market here by Harold Waterworth who was formerly with the Bank of America.

Chas. Maewatty, aged 55, passed away in Liverpool early in September. For years he had been active in the local grain market as a broker in cash wheat, etc. About six months ago he was led to resign as a partner in the firm of Maewatty & Flahive owing to poor health. Hence he had given up business and

was traveling abroad. Still he had been recuperating satisfactorily and therefore his sudden death was unexpected. It was caused by a cold leading to influenza.

J. A. Lenhardt, flour receiver, who has represented the Federal Milling Company of Lockport, N. Y. here has retired from the flour trade and will go into the real estate business in Florida.

Michael G. Comandaros of the Colonial Export & Import Company, has been elected a member of the N. Y. Produce Exchange.

R. Crowley of Sandy & Co., long prominent in the export trade has been elected a member in the N. Y. Produce Exchange.

Raoul J. Menendez of Joaquin Menendez & Co., exporters and importers, is an applicant for membership in the N. Y. Produce Exchange.

William Riemschneider of W. Riemschneider & Co., one of the best known exporting houses in the trade was back on 'Change early in September and received a hearty welcome from his many friends as he had just returned with Mrs. Riemschneider from a four months' visit to Europe. Much of this time he spent in visiting relatives and friends in Holland, Denmark, Norway and Sweden. He found crops better on all sides with the quality also superior.

It was pointed out as an interesting and important fact that a material part of the oats exported to or bought for France lately were intended for the army in Morocco.

Among the traders from the Chicago Board of Trade who have recently been visiting on the New York Produce Exchange were: T. F. Yore, of S. F. Lewis & Co.; Tommy Howell; George Lowitz; Sam Mineer; Warren A. Lamson of Lamson Bros. & Co.; F. A. Funk; John Magnus; E. McKenna & Dickey; J. J. Bagley of Logan & Bryan; Barnett Faroll of Faroll Bros.; J. E. Cairns of Jackson Bros. & Co.

INDIANAPOLIS

H. M. RUDEAUX - CORRESPONDENT

MUCH has been said and a great deal more predicted about Indiana's corn crop; and there is no reason not to believe that the crop will be a bumper, but until it is safely harvested and in the cribs it isn't well to figure on it too heavily, was a remark made by one of the bank presidents in this city. Good crops mean good times for the farmer, but a great many business men try to kid themselves into thinking that all the farmer has to do is harvest his crop and spend his money, which is wrong. Big type headlines proclaiming bumper crops, and visions of unbridled prosperity have been appearing in the daily papers, and on front pages, while the same publications mention the fact, that the southern part of the state is suffering from drought, and water is being hauled for a distance of 50 miles. While this condition isn't general all over the state, don't overlook the fact that it will have its bad effects on the condition in general, and it might be well not to be too optimistic.

H. E. Kinney says that corn in the parts of the state he has visited, is in good shape, and in some sections the dry spell has benefited the crop. Some corn is practically perfect and has ripened fine, in fact the general run has ripened up in perfect shape. The demand for December and January shipment is very good, and it looks like the demand will improve. Mr. Kinney is hoping that the scoopers over sections covered by his elevators will not be so active this season. We have been annoyed for several years by scoopers, but hope not to be this year.

Bert Boyd reports that corn around Bicknell is firing and drying up, due to the fact that there has been four weeks of hot weather and no rain, and a temperature of 105 for four days past. The report says that corn is not maturing properly and badly in need of rain. New Harmony, Ind., reports that the crop will be below the average, and not nearly what it was last year. Mr. Boyd says that the reports are from reliable sources. Park County reports an excellent crop, and corn is maturing in good shape. Shelby County and southeast toward the Ohio River are suffering from the lack of rain which will no doubt have its bad effects on the crop. The demand for oats is increasing, and the movement is very light, oats sold equal to 43 cents at the river today, but the movement seems limited. Corn is in good demand and No. 2 yellow sold equal to 95½ cents Indiana points.

Ed. Sheppard of the Cleveland Grain Company believes that the corn crop, especially the late corn, is injured by the intense heat and drought. Some parts of the state have been hit hard by the intense heat

and drought, and it is bound to hurt the corn crop. However, reports from some sections indicate a good healthy crop.

Elevator "B" is full of oats; the crop is pretty well off the farms, and movement is light with a fair demand. Quite a few visitors from different parts of the state are in the city attending the State Fair among them some prominent grain men.

O. P. Larramore, better known as Larry, traveling representative for the Cleveland Grain Company, is preparing to take a vacation of a week or 10 days. "Larry," says Mr. Sheppard, "is in need of rest, and feels entitled to one."

According to "Todd" Sloan, of Kendrick & Sloan Company, the movement of hay is only moderate, but even so if there hadn't been one pound of new hay raised there was and is enough of old hay left over to supply the demand. Prices in southern markets are cut of line, as shippers are asking more for hay now, than they did a while back. Ohio points are asking \$18 to \$20 track and before the South can get good hay there will be an advance in the price.

Feeds are somewhat lower with the coming of new corn and crop reports, but the demand is not improving as it should. Prospects for fall are encouraging, however.

The abandoned plant of the American Hominy Company in Gent Avenue was sold to the Northwestern Realty Company of that city. As yet nothing has been decided as to the future use of the plant, which will be held as an investment by the purchasers.

Wm. Kasselbaum, one of the local feed dealers, is reported in a rather serious condition with hay fever. On last Sunday just previous to a heavy storm here Mr. Kasselbaum collapsed and has been under the care of a physician since. While he has been a victim of the fever for some years never before has it been so serious as this year. His friends on the market wish for his speedy recovery.

The Garten Feed Company report feed business fair with prospects good for the fall trade.

One of the leading Indianapolis grain houses reports that the movement of old corn is very light. This fact seems to give strength to the new corn quotations. This company also is optimistic in its survey of Indiana's corn crop conditions, which is welcome news to many.

DENVER

T. V. KIRK CORRESPONDENT

THE peak of the wheat movement is at hand as we are receiving from 40 to 50 cars a day which as a rule is grading very good except for smut. Total receipts of grain for the month of August, 1925, were 1,539,850 bushels as compared to 1,846,850 bushels for the same month a year ago. Shipments for August, 1925, were 149,450 bushels compared to 257,150 bushels in August, 1924.

The Denver Grain Exchange sent a representative to the hay school recently conducted at Kansas City by the Federal Government and will in a short time be in a position to grade hay and issue a Federal Certificate according to Government standards. This will be of great assistance to the producers, shippers and consumers of hay as it will enable them to ascertain a definite grade upon which to base their contracts.

Some of the mills report that business is very good and that they have received quite a few good sized orders during the past week which necessitated running the mills about 18 hours and from their viewpoint business is improving and they will continue to operate on the same time, while some of the other mills take a pessimistic view stating that business is not normal for this time of the year, that while they have been running 24 hours during the past week they expect to cut running time to 11 hours during the next 7 days. Generally speaking, however, the situation is improving as while there may be a few dull periods the mills are receiving a good quantity of orders and working steady, but the nervousness of the market has of course forced caution upon many of the buyers which is only natural when the market begins to slip.

Prices on flour decreased during the past week about 20 cents a barrel. The millfeed situation has not changed very much. There is the usual business for mixed car loads going into the Southwestern States which is greatly increased in certain sections due to

an enlargement of stock feeding operations, while in other sections open weather and good fodder has cut down the demand.

GRAIN NEWS FROM BOSTON

By L. C. BREED

Medway Coal & Grain Company, Medway, Mass., has been incorporated with a capital stock of \$25,000. The incorporators are Thomas F. Malloy, Mary A. Malloy of Medway and Oliver F. Dorward of South Norwalk, Conn.

Robert W. Sawyer, one of the members of the Exchange, was given a purse of \$100 in gold as a testimonial by his associates. The presentation was made by A. K. Tapley in behalf of the contributors to the gift. Mr. Sawyer has been secretary-treasurer of the Boston Flour & Grain Club, and is now to retire from active participation in the grain brokerage business.

The New England Crop Reporting Service states that the estimated crop of tame hay this year is 4,340,000 tons, compared with 4,432,000 tons harvested last year, and 4,127,000 tons the five year average. It is a big crop in Maine, New Hampshire and Vermont, and average in the other three states. Pastures are excellent in northern New England but slightly under average in southern New England. Minor grain crops are generally good, and a larger acreage than last year has been planted to buckwheat.

Some writers refer to sweet corn as "Indian Maize," but attention is called to the fact that the Indian maize which kept the Pilgrims alive in their first winters around Plymouth was a very different variety of corn, such as farmers feed to cattle now-a-days. The sweet corn now served is a result of agricultural evolution, and because of its excellent quality, for years past has been a popular product.

The contract for dredging North Broad Sound channel leading into Boston Harbor, to a depth of 40 feet at mean low water, has been awarded by the U. S. Army engineers. The sum of \$450,000 has been allotted for this improvement, which when completed, will increase the depth of the channel from the present 35 feet, and make it possible for the largest steamships to enter and leave Boston Harbor at all stages of tide.

Boston seed dealers report an excellent demand for grass seed for lawns. Referring to the growing crops, they state that in some sections of New England, considerable damage was suffered by frost, especially in low lands. The marked drop in the temperature last week was unusual for this season at this season of the year.

The market for feedstuffs is ruling quiet. There are small offerings of middlings, and almost none of Winter bran. There is no Canadian mill feed at present being shipped to Buffalo. Owing to complaint of drouth in some sections of New England, dealers look for a better inquiry in the near future. Coarse grains are irregular, prices changing almost daily in sympathy with fluctuations in western markets.

Receipts report a better demand for top grade hay which is in limited supply. Medium grades also are selling more freely owing to the better tone of the market. Stocks of hay at the terminals are quite moderate, as shipments of late have not been large. Straw is dull with prices steady. Receipts of hay during the month of August, 286 cars; straw, 5 cars.

Stocks of grain in local elevators are as follows: wheat, 45,640 bushels; corn, 593 bushels; oats, 70,650 bushels; rye, 1,855 bushels.

Receipts of grain at Boston during the month of August were as follows: Wheat, 41,550 bushels; corn, 1,425 bushels; oats, 257,125 bushels; rye, 2,050 bushels; barley, 32,575 bushels; malt, 1,200 bushels; mill feed, 132 tons; cornmeal, 262 barrels; oatmeal, 4,928 cases; oatmeal, 195 sacks.

The Newcastle Lumber & Grain Company has been incorporated at Damariscotta, Maine, with a capital stock of \$200,000, to deal in hay, grain, lumber and groceries. George D. Pastorius of Newcastle, Maine, is president.

Among the visitors to the Exchange during the month of August, outside of New England, were the following: H. A. Wiese, Sioux City, Ia.; E. H. Shim, Washington, D. C.; J. W. Strickland, Jr., Battle Creek, Mich.; F. R. Tren, West Palm Beach, Fla.; H. E. Irving, Grafton, Ohio; E. Chevalier, Sherbrooke, Quebec; Ernest Denault, Sherbrooke, Quebec; W. B. Currie, Toronto, Canada; C. B. Reed, Memphis, Tenn.; J. D. Keenan, Buffalo, N. Y.; W. S. Dillon, Chicago, Ill.; J. B. M. Wilcox, Kansas City, Mo.; Lee H. Higgins, Grand Rapids, Mich.; Geo. M. Minnlot, Schuyler, Neb.; J. W. Frechette, Montreal, Quebec; W. Joyce, Duluth, Minn.; Thos. F. Yore, Chicago, Ill.; C. H. Morris, Seattle, Wash.; F. H. Woodward, Orlando,

Fla.; J. F. Hall, St. Louis, Mo.; W. B. Fisher, Chicago, Ill.; Geo. J. LeBron, Chicago, Ill.; A. J. Walbridge, Peterborough, N. B.; Harold J. Montgomery, Philadelphia, Pa.; E. O. Chapin, Chicago, Ill.; T. D. Clapham, New York City.

U. S. WHEAT EXPORTS DOUBLE

With wheat shipments to foreign countries aggregating 195,000,000 bushels in the fiscal year ended June 30, 1925, the material wheat export volume is seen to be more than twice as large the previous year, and nearly four times as great as pre-war totals. Flour shipments meanwhile though well above pre-war figures, have dropped somewhat. Canadian flour shipments have fallen off similarly. J. A. Le Clerc of the Department of Commerce supplies this information, together with the following facts.

A study of the wheat situation of the United States during the pre-war period and during the past four years indicates that the amount of wheat available during these latter years averaged 175,000,000 bushels more than before the war and that the shipments of both grain and flour aggregated 124,000,000 bushels more than those of 1909-1913.

The principal buyers of American wheat are essentially the same now as before the war, except that China may be considered one of our more recent customers. As compared with the pre-war trade, exports of wheat during the past four years have shown a marked increase in the case of China, Canada, Japan, Italy, and France. Measured in actual bushels exported, the most important countries of destination during the crop years 1922-1925 have been Canada, United Kingdom, Italy, Netherlands, Belgium, Germany, France, and Japan. The exports to Canada are, as a rule, merely for re-export purposes.

Exports during 1925 were greater than those of 1924 in every case except to Mexico, China, and Japan. About 20 per cent of our surplus wheat of last year was shipped to the United Kingdom, 28 per cent to Canada, 13 per cent to Italy, and 6 to 8 per cent each to Germany, Belgium, France and the Netherlands.

Although the exports of flour during the past fiscal year are nearly 3,500,000 barrels less than during the fiscal year 1924, shipments amount to nearly 14,000,000 barrels—this amount is about 3,200,000 barrels greater than average pre-war shipments. Compared with 1924 the flour exports of 1925 show an increase to Europe of 1,569,000 barrels to South America, 151,000 barrels, and to Africa, 35,000 barrels. A decrease of 421,000 barrels occurred in exports to North America and of 4,717,000 barrels in shipments to Asia, chiefly in China, including Hongkong and Kwangtung, and Japan.

To all countries, with few exceptions, where the United States exports of flour were less during the past fiscal year than during the year before, the shipments from Canada were likewise less.

URGES DUSTLESS CLEANERS

Grain cleaning is dirty and disagreeable work for the elevator operator and in selecting a cleaner, the board of directors should consider the health and comfort of the operator. Better work and more cleaning will be done with a cleaner which is practically dustless, which is easy to adjust and which does not require constant attention. This is the opinion, recently stated, of a grain cleaning expert from Secretary Jardine's department at Washington.

The cleaning of grain for seed purposes can often be performed during the slack season and only then there is no danger of interruption of operations, he pointed out. When cleaning for seed, several hundred bushels should be cleaned at a time so as to minimize the mixing of grain which may be in the elevator boot—unless the operator is willing to clean out the elevator boot before starting. Great care should be used in cleaning so as not to mix varieties. In those houses having only one leg the screenings should not be elevated until after all the clean grain has been elevated.

Hints for the Elevator Millwright

Big Bill Shows How a Mountain Resort and Amusement Park Can Be Added
to Make Small Elevator Pay Better

By OLD TIMER

AN AUTO cavalcade, with William Davis, has just arrived at an elevator owned by Mr. Smith, who with three other owners of elevators are conniving with "Big Bill," as Mr. Davis is called by his friends, to find ways and means of adding to the dwindling business of the four elevators owned by the gentlemen of the motor cavalcade, who have "borrowed" from Morris M. Marston, proprietor of the Square Deal Elevator, Massapoag Lake, his millwright and "bully schemer," William Davis. The party had already visited Mr. Brown's little elevator and Big Bill showed him how he could add a lucrative coal and builder's material business to his dwindling elevator activities.

In 10 minutes after he saw Mr. Smith's hill and lake-surrounded elevator, Big Bill had a plan pop into his mind.

"Just reckon what you have got here," he said to Mr. Smith, as he seized that gentleman by the arm and led him to a corner of the elevator from whence a fine view of the creek, the lake and the surrounding hills was spread before them. "Why, man, what do you want better than that, this side of the Alleghenies, the Rocky Mountains, or the Swiss Alps? I never saw a finer bit of country, and you say you are located only a few rods from a trolley line which connect half a dozen thriving big towns with two small cities. And then, there is that railroad, with a branch track to the very door of your elevator, and plenty of room to extend the side track for half a mile right along the lake. What more do you want with which to make all kinds of money?"

"What do you mean, Mr. Davis? I don't see any wheat growing on those rugged hills, and I'm dead sure that never a bushel of wheat will come to me over the trolleys, from the towns and cities around about. All the wheat I can sell comes in over the railroad, and its connections are very good, but I can't sell wheat enough to make a living. What do you mean?"

"Dope up your elevator property for a summer resort, watering place and amusement park. You say you have about 200 acres of land, including most of the lake and a stretch of the creek? Then put in picnic grounds, build a bandstand and dancing pavillion, put up a movie theatre, stock the lake with a fleet of boats, big and little, including a few sail boats and some motor boats. If you see fit, add a tourist camp, a small repair garage, a filling and greasing station. Don't you see what a whale of a proposition you have lying idle right under your very nose?"

"Well, Bill, there might be a chance there for some summer business as you suggest, if only the people could be induced to come out here. But how could I get them started, and how could I do everything you have suggested, and then how could I take care of it all? What you have mentioned, would require the entire time of a dozen or more men. Besides, it will require a barrel of money to do the things you have mentioned."

"That's true, Mr. Smith, but you know how to hire men, don't you? Seems as I have heard that you are pretty good in that direction. As for the money part of it, somebody told me at one time, that you had a pretty good wad salted down where it was safe and earning a bit of interest?"

"Well, I have some capital, but not enough to swing this proposition. I should have to get in more capital, and I don't like partners or stock companies."

"Neither do I, Mr. Smith, and I don't blame you for being 'leery' of both corporations and stock companies, for, once you get into either, you are at the mercy of other men and it will be like the tail trying to wag the dog for you to attempt the control of the business you have built up. Go it alone, Mr. Smith, with the aid of capable assistants, whom you can handle as you will and who can be

advised, advanced or dispensed with as you find for your best interests.

"Just look at the proposition, Mr. Smith. Here you have about 200 acres of first rate location for an amusement park. You say you own the property free and clear. Now, as you need money to put into the amusement business, doesn't it stand to reason that more than one bank or capitalist will be more than willing to advance, upon your ever increasing security, all the funds you will need for the development and operation of this project?"

"Yes, pretty likely, that's so. Anyway, I can find out pretty quick after what is to be done has been doped out and put on paper. Maybe I've got friends enough to finance the proposition when it gets beyond my capital. But what bothers me is—to make any money after the place has been fixed up, it will be necessary for thousands and thousands of people to come here for amusement, and—to keep coming. How am I going to be sure of a paying patronage after the thing has been made ready for business?"

"Don't worry for a minute over that end of the matter, Mr. Smith, and you won't after you listen to a few things I'm going to tell you about it. All over the country there are amusement parks, hundreds of them, which are paying mighty good profits, and not one in 20 of those parks have a small fraction of the natural beauties and advantages which you have here. I can show you many parks where there is absolutely nothing, save some kind of a small river or creek, where the trees are scarcely more than scrub, and the soil nothing but sandy desert. Yet, you will find every one of these amusement parks paying big dividends, although in many instances they are located several miles from even a village.

"Very many such amusement parks have been established by street railway companies who draw a profit from the mileage of the many passengers, to and from the parks in question. And, here is the clue, which followed up by you, will bring to your park the thousands of people necessary for its success. Here is the dope, Mr. Smith: Go to the street railway management and take them into your confidence. Agree to meet them half way, to work with them, and they will gladly agree to bring the people to your park, and to advertise and aid it by every means in their power. Make a deal with the street car company whereby both you and they will be the gainers by the new business which your park will open to you both.

"Deal in like manner with the steam railroad which now extends a freight track to your elevator. Have figures made and ready which you can show the steam railroad officials, and which will show to them the attractions you will have to offer. Perhaps you will not get the steam railroad to improve their trackage at first, but go ahead with the trolley business, and just as soon as that shows its worth, you will have the steam railroad building tracks along your lake and placing there whatever passenger station facilities are necessary.

"Now Mr. Smith," continued Mr. Davis, "I don't need to detail to you all the opportunities for money making in an amusement park such as you can establish. You know already, of what most of the attractions of such places consist, and how popular many of them are to the public. You can scout around and size up everything known in park amusements, or you can get in touch with an engineer experienced in such matters, who will quickly put you wise to the best possible attractions for your particular environment.

"How can you get in touch with such a man? Why, any manager of an amusement park can give you the names of one or more, or, he can surely give you the address of one or two amusement journals, wherein many such 'amusement engineers' have placed their names, addresses, and the particular branch of amusements which they are exper-

enced in laying down and developing. And I surely believe that in starting an amusement park, as well as in starting an elevator or a flour mill, it will pay you well to consult with an engineer or two who are well experienced in the matter you propose to spend your money and time upon. Now then, doesn't it seem reasonable that an engineer, experienced in amusement park planning and installation, should be able to lay down a better park than either of us? So, when you get ready to start an amusement park around your dandy little elevator, by all means, buy the best advice you can get as to exactly what you had best do. The money it costs, will be mighty well spent, I assure you."

"But, Bill, what shall I do with my grain elevator? It is a good little one, and is more than paying expenses right now. Has that got to be dropped off the map when the merry-go-round business is started up?" asked Mr. Smith.

"No, Mr. Smith, not by a good deal. Run the elevator right along. Advertise it as one of the attractions of your park. Arrange it so it will be easy of access, inside of course, to visitors, and build a roomy observatory on top. There must be a fine view from up there, and an observatory roof garden will pull a big crowd, and if you add a restaurant or a cafeteria up there, you can keep the crowd moving up to that point, and down again, most of the time. You have plenty of room in the elevator and storage bins, haven't you?"

"Yes, a whole lot more than I am using, the way business is now."

"Then, Mr. Smith, why don't you add to your elevator a feed mill and the other machines necessary for making the best kinds of poultry and chicken feed known to poultry raisers? Make the feed mill a show place, with everything open for visitors to see and to understand. Then, put up the feed in interesting cartons and place it on sale and have demonstrations of various feeds frequently? A large proportion of people visiting amusement parks are usually interested in good feeds, and will buy and carry away, or order delivered, large amounts of good poultry feeds, particularly when they can see and understand the methods of its making, and the balance of the ration contained in your feed. Doesn't that stunt look reasonable, Mr. Smith?"

"It sure does, Bill, and I want to think the whole thing over. I must think about it, talk the matter over with my wife, and then I'll come over to the Square Deal Elevator and we'll dig into the matter some more."

"That's fine, Mr. Smith. And now, as soon as Mr. Blood is ready, we'll roll along over to his place and see what he can do to add to his elevator business. Is that right, Mr. Blood?"

"Yes, Bill, that's what. But I am getting a bit discouraged. Mr. Brown has a fine location for the coal and lumber business. Mr. Smith here, has the making of a million-dollar amusement park, but what you can find that my location will warrant, in order to increase business, I haven't the least idea. Why, that elevator stands almost alone. Only a railroad track and cross-roads near it. The nearest house is 1,000 feet away. No scenery, and the shrub oaks are so thick they can only give names of three letters to the children which are born around there. What you can find for me, will be little enough, I'm sure!"

"Don't get blue, Mr. Blood. I never yet took such a bad job that I couldn't make it better."

RUNS TWIN ELEVATORS

At Malcolm, Iowa, on the Chicago, Rock Island and Pacific Railroad, stand the twin storage units of the Farmers' Elevator Company. Although Malcolm is a comparatively small town, the Rock Island line that runs through it, is the main line, and not a branch, such as goes to many towns far greater in size than Malcolm. So the Farmers' Elevator Company there has the best of shipping service. It is about a day's run to the Chicago market.

The elevators are of frame construction, and hold 20,000 bushels each. Grain can be received at the rate of 2,000 bushels per hour, and shipped

out with equal dispatch. Included in the equipment for handling the grain after it is received, is one grain cleaner, one Western Corn Sheller and one Monarch Attrition Mill which has a capacity of one and a half tons per hour. To run these machines, six electric motors are in use. They furnish adequate driving power for the belts in the plant.

Two automatic scales are installed for the weighing of all the different grains. All kinds of grain are received. During the course of a year, about 300,000 bushels are handled.

The Farmers' Elevator Company, in addition to its grain business, has built up a good trade in lumber and coal. The lumber business of the company forms the most profitable part of the sideline selling activity.

This company was started in 1913, and is still going strong; it has good shipping facilities, and its receiving is aided by Malcom's location on the River to River Road, one of the Middle West's best thoroughfares. Besides these advantages and its good management which for a number of years, has successfully guided its affairs, the Farmers Elevator Company at Malcom, is situated almost in the very center of one of the richest grain states in the world, and in the heart of the leading corn state. It serves a rich grain territory.

REDUCING SPRING WHEAT

The dockage assessed in Minnesota by the Minnesota State Grain Inspection Department averaged 2.2 per cent for the 1903 crop, and the average increased to 4.6 per cent for the 1920 crop. It has been estimated that the total Spring wheat crop in this country that year produced 9,500,000 bushels of dockage. This waste may be practically eliminated by the universal practice of better cultural methods in growing wheat, by cleaning wheat for seed and market on the farm as part of the threshing operation, or later by the use of a fanning mill or other grain cleaning device, or at the country elevator where power-driven cleaning machines are available. Accordingly, with the remedy at hand, there is little excuse for not bettering the condition.

In Farmers' Bulletin No. 1287, issued by the U. S. Department of Agriculture, the Department says, "The farm is the logical place to clean wheat, preferably as part of the threshing operation, because the necessary power is available and later handling is avoided. The fanning mill is the most practical cleaning machine for farm use." In commenting on elevator facilities for cleaning wheat, the bulletin goes on to say, in part:

In the central Northwest, the country elevator is the first place where a general effort is made to remove the foreign material from commercial wheat. Many of the elevators built in that section during recent years are equipped with machines for cleaning wheat. The older elevators, especially those built more than 20 years ago, as a general rule, are not so equipped. These are generally of a type which requires considerable remodeling before cleaning machines can be installed. In 1920 the Federal Trade Commission found that out of a total of 2,713 country elevators located in the principal Spring wheat states, about 39 per cent were equipped for cleaning wheat.

There are many types of machines on the market for cleaning wheat. These may be divided into two general classes according to the different methods they use in separating the foreign material from the wheat. All of the types using sieves and air blasts or air currents may be classed as sieve and air machines, and those using corrugated or indented surfaces, and machines using the principle of sloping smooth surfaces and centrifugal force, may be classed as special cleaning machines.

A machine for recleaning grain in connection with the threshing operation is being developed. This machine is constructed along similar lines to those of the disc separator. In 1921, experimental tests were made with this machine in threshing several lots of wheat that contained dockage ranging from 1 to 38 per cent in the different lots. The dockage in each lot of wheat was reduced to less than 1 per cent and the screenings removed contained less wheat than is found ordinarily in elevator screenings. The results from these tests were so satisfactory that further experiments are being conducted to improve its design and to determine whether or not it is practicable to adapt this machine for use on all sizes and makes of threshing machines.

Robert H. Black, in charge of grain cleaning in-

vestigation for the Department, has referred in some detail to the portable cylinder cleaner, which in its experimental stage was found so successful that manufacturers are placing it on the market this year. He says, in part:

The results of our 1924 threshing and cleaning experiments in the four states of Minnesota, South Dakota, North Dakota, and Montana, confirmed the 1923 results. During 1924 several new types of recleaners or thresher cleaners were used in our experiments. One of these cleaners, the portable cylinder cleaner, was so successful that the manufacturers are placing it on the market this year. The portable cylinder cleaner was designed to be used with threshing machines having cylinders 26 inches or less in length. The portable cylinder cleaner is lighter in weight and requires less power than the larger capacity disc cleaner about which you wrote me some time ago.

The results secured in cleaning wheat, rye, flax, barley, and oats during the past winter lead me to believe that the portable cylinder cleaner is a profitable machine for the operator of a small thresher, or for anyone who has spare time during the winter to do custom cleaning. You can secure full information, pictures, and price of the portable cylinder cleaner from the Twin City Separator Company, 1701 Madison St., N. E., Minneapolis, Minn.

ITALY DEVELOPS MEANS FOR HANDLING INCOMING GRAIN

Among the outstanding features of the season just ended was the short world harvest of both wheat and rye, amounting in all to about 4,160,000

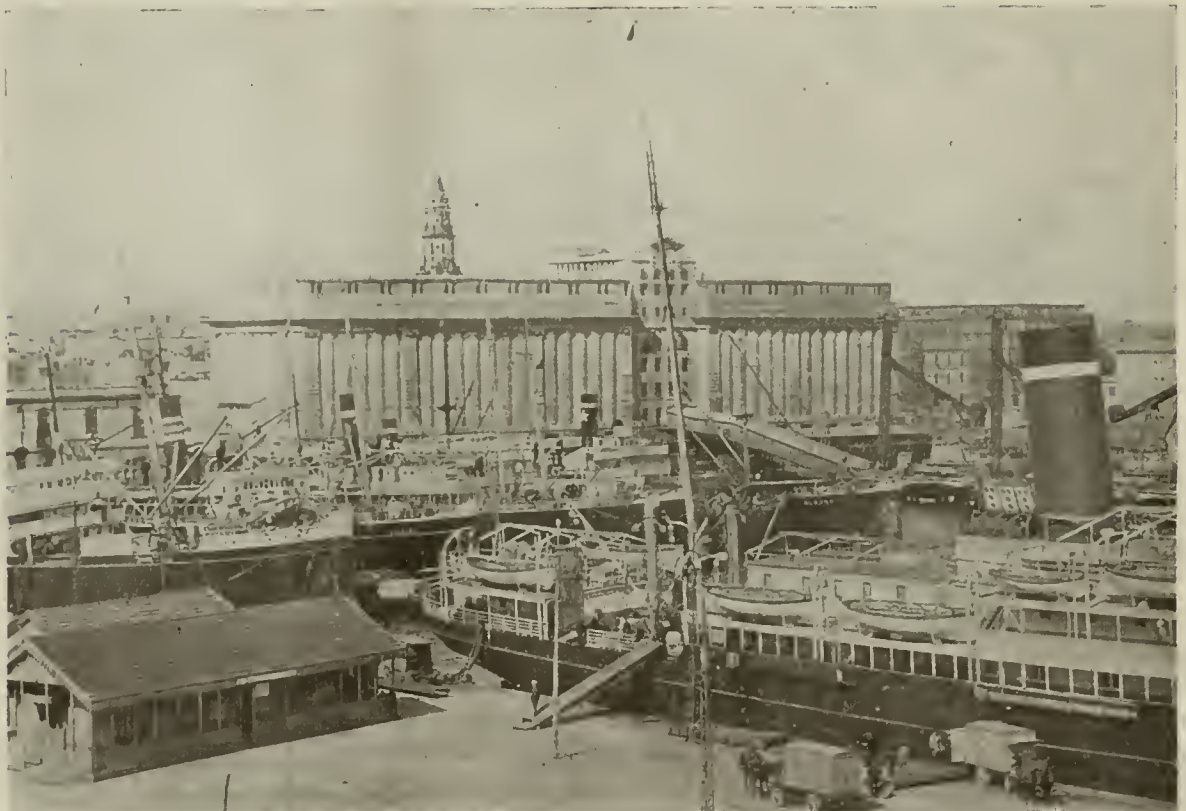
tration. This unit, which is of modern construction and presents a decidedly pleasing appearance, is located in Naples, at which point considerable grain enters. If the facilities at all strategic points were as adequate and well built as this house, marketing would be simplified in a large degree. The elevator gives evidence that the grain merchants abroad are rapidly realizing the benefits of dispensing with archaic apparatus and eliminating inefficient methods.

Discussion has been prevalent in Italy regarding the possibility of the country's supplying its own cereal needs in the near future. Some experts are of the opinion that Italy can and should raise enough wheat to feed her people, while others hold that all the land which is suitable to the cultivation of wheat is already devoted to that purpose and that per acre yields could never be made sufficiently high in southern Italy to bring the total yield up to an amount which would make the country self-supporting in this respect.

BEARINGS MADE OF RUBBER

By W. F. SCHAPHORST

Some users of bearings may not know that rubber is now coming into use to replace babbitt metal and Lignum Vitae. Engineers have already gone so far in the use of rubber as to replace the babbitted stern bearings on a Diesel power tug with rubber. After having been used 10 months, it has shown no



CONCRETE ELEVATOR WHICH HANDLES GRAIN FROM THE EXPORT COUNTRIES AT NAPLES, ITALY

bushels or nearly 600,000 less than for the previous year, of which deficit 350,000,000 bushels were in Europe. The shortage in Europe was met in part by an almost 50 per cent reduction in non-European imports, by drawing heavily upon reserves in exporting countries themselves. The total exports for the year amounted to 715,000,000 bushels, of which North America furnished nearly 60 per cent. Factors involved in the declining weekly average exports have included, according to Department of Commerce experts, the small Winter wheat harvest of the United States, the difficulties of financing imports, prevailing high prices, and better crop prospects in Europe.

Tariff legislation in Germany, Italy and France is conducive to a limitation in imports. However, it is of interest to note that our exports of wheat to Italy in the calendar year, 1924, were reported by the Government at 16,329,224 bushels, valued at \$23,145,126. Wheat flour in the same period ran to 109,397 barrels, worth \$588,861.

With the large amount of grain being handled in Italian ports, it has been a necessity to provide facilities for storing. Among the modern improvements which have lent material help in the marketing situation are such establishments as the large concrete elevator shown in the accompanying illus-

sign of wear either on the shaft or the bearing. Some of the leading pump manufacturers have already adopted rubber bearings as standard equipment for their pumps.

Surprising as it may seem, the coefficient of friction of steel on wet rubber is even less than on an oiled babbitt surface, and it is reported that rubber will carry loads as high as 375 pounds per square inch.

The principal advantage of rubber is that sand or grit will not cut the bearing, nor will it cut the shaft because the sand embeds itself into the rubber and in due time works out without doing any cutting or scratching.

Oil, of course, must not be used for lubricating as it would ruin the rubber. Water, and nothing but water, is the lubricant. This may amount to a considerable saving in lubricant and money.

The rubber bearing is provided with a spiral groove similar to babbitted and other bearings. A constant stream of water passing through this groove carries out any dirt or grit that may become embedded in the rubber and which is generally rolled out into the groove.

Speeds as high as 5,000 R.P.M. are reported with bearings of this type.

Vibration, noises, pounding, misalignment, etc.,

are defects that are entirely or partially rectified by means of rubber bearings.

The progress being made by this new type of bearing will doubtless be watched with interest by all engineers.

The writer considers it a very important engineering advance.

BUYS SECOND ELEVATOR IN NEBRASKA TOWN

Situated in the center of one of the leading grain and livestock districts of the State of Nebraska is the town of Wilcox, and here the Wilcox Grain Company has recently acquired its second elevator unit. The first was purchased from the Updike Grain Company recently, and will be used as a storage adjunct of its late purchasers. The newly acquired plant has a capacity of 12,500 bushels. It was purchased by Roy M. Strong, owner of the Wilcox Grain Company, from the Duff Grain Company. The latter concern had been engaged in the grain business at this station for more than 25 years.

I. M. Rhoades, who has managed the elevator in Wilcox for over 22 years, continues to manage the business. The house is located on a branch of the Chicago, Burlington & Quincy Railroad and is of wooden construction. Its storage is composed of 11 bins, which afford an aggregate capacity of



24 TEAMS READY TO DELIVER CORN TO THE WILCOX GRAIN COMPANY, WILCOX, NEB.

12,500 bushels, and the business handled in 1924, ran to 110,000 bushels.

Electric current furnished by a central station affords power for operating the elevator and is also used for lighting. One electric motor of 10 horsepower is used, with a belt drive. The unloading devices include one wagon scale and one automatic scale. When the picture shown on this page was taken, there were 24 teams and wagons loaded with corn all lined up and awaiting their turn at the elevator. The principal commodities handled include wheat, corn and oats.

Mr. Strong's purchase of these two elevators has the effect of unifying the grain business in the locality and reducing the overhead which the grain business has had to support in the community. He has been very successful in the past as a stock buyer and feeder, and by taking over the elevator he has shown his faith in the future of the community.

Mr. Strong owns 860 acres of good agricultural land near the town, part of which he operates himself and part of which he rents to other farmers. His town real estate includes a thoroughly modern home of his own as well as other rented residence property. Hard work and plenty of it has been his regular fare, and by combining this with a consistent policy of fair dealing he has achieved a reputation locally, and at the same time built up a good business. This latter fact is most completely proved by Mr. Wilcox's latest purchase. Grain men are not prone to buy additional houses unless their first venture is an unqualified success and a paying proposition to the operator.

EXPORT TRADE IN GRAIN*

Grain which is to be moved down the lakes is handled by arrangement between the owner, who may be a "shipper" or an exporter who has brought it in store or f.o.b. his tonnage at the western port, employing a vessel broker. At Duluth, the term "vessel broker" is used to describe individuals or firms who function as forwarding agents and marine insurance writers as well as freight brokers. That is, the work of a Duluth vessel broker includes these three lines, although at other ports they are usually kept separate. As compensation, this three-in-one factor receives 35 per cent of the insurance premium paid by the shipper. "It is not altogether clear," says the Commerce Department report, "why the shipper should pay the entire charge for services of which shipowners receive part of the benefit, but this is the custom." The report goes on to say:

Marine insurance is always carried on lake shipments and outturn insurance is usually carried. Outturn insurance protects the shipper against a difference in loading and unloading weights. That is, the insurance company pays for any shortage and takes any overage. The premium is 13½ cents per \$100. The tare allowance of ¼ bushel per 1,000 bushels made by shipowner goes to the insurance company.

The practice of vessel brokers writing marine insurance has led to some dissatisfaction, as it is said that shippers who do not carry policies with the insurance companies that are represented by local vessel brokers have difficulty in securing tonnage, and that the rates charged by these companies are excessive.

difference in distance from Duluth to eastern Lake ports is not much of a factor in the rates to these ports. Much more consideration is given to the likelihood of securing return cargoes, depth of water, and unloading conditions.

Lake rates, as reported by the Duluth Board of Trade during 1913, 1920, 1921 and 1922, show considerable fluctuation. The minimum (which prevailed a good part of 1913) ran around 1½ and 1¾ cents per bushel, and the maximum, during the latter part of 1920, was 7 cents per bushel.

By far the larger part of the grain shipped from Duluth by water is carried by bulk freighters in full cargoes, though a cargo is often made up of consignments by several owners. In grain-carrying capacity the larger boats range from 200,000 to 450,000 bushels, wheat basis, the capacity being divided between three to five holds. The smaller boats following the all-water route to seaboard by way of the Welland Canal and the St. Lawrence River usually carry from 70,000 to 80,000 bushels. The trip from Duluth to Buffalo usually takes about four days, but sometimes round trips are made in 10 days. By the all-water route the trip to Montreal can be made in seven days under favorable conditions. The larger boats carry grain to Port Colborne for transfer to canal-size vessels, as well as to lower lake ports to connect with eastern rails.

In discussing this feature the Government report goes on to say:

Package freighters also carry some grain, usually small lots for millers. Their rates are likely to be ¼ cent or ½ cent per bushel higher than the rates made by the bulk freighters.

The function of the vessel broker is to bring together shippers and shipowners. As his earnings are derived from the insurance written on the shipments that pass through his hands, his interest lies in securing as many shipments as possible, rather than in the rates on which they move. For this reason he may be regarded as working primarily for shippers.

On the one hand, a vessel broker keeps close track of prospective shipments, their quantity and kind, their destination, and the time at which they will be loaded; on the other, of the boats available and their positions. With detailed data of this sort in hand, the broker matches the requirements of shippers and shipowners, to their mutual profit.

A successful broker must be a specialist in all that pertains to lake shipping for he looks after forwarding and insurance matters as well as freights. He must understand insurance practice and have a working knowledge of marine law, especially as it relates to charter parties and bills of lading. He must be well acquainted with the customs of the grain trade, which are legion; with marketing practices, rules and regulations of exchanges, and methods of rail as well as of water transportation. He must know upper and lower lake port facilities and conditions, such as the capacity of the elevators, the speed at which they load and unload, whether they work nights or Sundays, the length and draft of boats they can accommodate. Some elevators, for instance, are up in slips and only boats below a certain size can reach them. It would hardly do to charter a 600-foot boat to go to an elevator where only a 400-foot boat can be accommodated, or to send a boat drawing 20 feet of water to a house at which the depth of water limits the draft to 19 feet. In estimating loading capacities, the depth of water at the Soo must also be taken into account.

By his knowledge of the capacities and arrangements of different boats and their positions on the lake at a given time, the broker assists grain dealers in adjusting their sales in respect to quantities and time of shipment to the tonnage available. Many sales of less than full cargoes are made, and with a number of contracts in hand the broker can match them up and secure full loads for the vessel and so bring about better earnings for the owner; or, by switching contracts to accommodate shippers, he can save them elevator storage charges or the expense of space chartered which they cannot use.

The broker not only arranges bookings to suit the vessel's loading requirements, but he also gives loading directions to the master and supervises the loading for the shipper. There are often three or four kinds of grain or grades of wheat to go aboard the same boat, and it is absolutely necessary that the boat be so loaded that it will be seaworthy and can be unloaded with the least trouble and delay. For example, he may have in hand a vessel with four compartments which is to load one hold with flax, another with barley, and two with wheat. If the wheat is all loaded forward and the barley aft, the boat may be so down by the head that its propeller will be out of water. Again, if a large boat is loaded with light grain amidships and heavy grain fore and aft, the strain resulting may injure the vessel. Unloading requirements must also be taken into account.

For economy and efficiency in lake shipping it is necessary for shippers and vessel agents to work together, and the broker is the connecting link.

*The result of a survey by the Department of Commerce on methods and possibilities of shipping grain abroad. Continued from page 756, May, AMERICAN GRAIN TRADE.

BIG INCREASE IN WORLD RYE
CROP

Rye production in countries that produce 78 per cent of the world crop, exclusive of Russia, is reported by the United States Department of Agriculture at 774,000,000 bushels this year against 569,000,000 bushels in 1924, an increase of 36 per cent.

Germany's rye crop this year is the largest since the war, being estimated at 301,873,000 bushels against 225,573,000 bushels last year. Pre-war production in the same territory was 368,000,000 bushels. The German wheat crop is placed at 107,000,000 bushels against 89,000,000 bushels last year; barley 112,000,000 bushels against 110,000,000 bushels, and oats 378,000,000 bushels against 389,000,000 bushels.

ARGENTINA ACREAGE GAINS

Argentina has increased her wheat area above the record acreage reported on July 15, according to a cablegram received by the United States Department of Agriculture from the International Institute of Agriculture at Rome. The area sown to wheat is now placed at 18,829,000 acres against 18,532,000 acres the probable acreage reported as of July 15. This is the largest acreage which has ever been reported. Last year the area sown to wheat was 17,792,000 acres but unfavorable weather conditions caused considerable loss and the area actually harvested amounted to only 15,976,000 acres. This year the crop was seeded under favorable conditions and the moisture supply to date has been satisfactory.

Increases are also reported in the acreage of oats, barley, and rye. The acreage sown to oats amounts to 2,940,000 acres compared with the July 15 estimate of 2,842,000 acres and 2,646,000 acres seeded last year, barley 815,000 acres against 791,000 acres as of July 15 and 680,000 acres for 1924-25; rye, 445,000 acres against 420,000 acres as of July 15 and 341,000 for 1924-25.

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, etc., at the leading terminal markets in the United States for August:

BALTIMORE—Reported by James B. Hessong, secretary of the Chamber of Commerce:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	1,688,509	1,424,438	2,073,438	1,063,456
Corn, bus....	80,503	65,110	.....	18
Oats, bus....	390,131	135,052	120,000	.....
Barley, bus..	349,609	1,390	325,455	.....
Rye, bus....	8,520	18,045	.....	.....
Millfeed, tons	1,350	507	.....	.....
Straw, tons..	51	65	.....	.....
Buckwheat, bus.	.....	.....	.....	.....
Malt, bus....	1,219	7,324	6,600	.....
Flour, bbls..	117,830	140,441	29,065	83,078

CAIRO—Reported by M. C. Culp, chief grain inspector and weighmaster, the Board of Trade:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	.....	112,683	.....	100,445
Corn, bus....	39,268	73,245	49,603	25,486
Oats, bus....	1,097,671	1,548,494	1,054,507	1,080,442

CHICAGO—Reported by J. J. Fones, secretary of the Board of Trade:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	5,337,000	28,237,000	4,956,000	17,809,000
Corn, bus....	7,784,000	7,736,000	3,872,000	3,376,000
Oats, bus....	14,251,000	9,981,000	6,635,000	2,967,000
Barley, bus..	1,860,000	775,000	617,000	173,000
Rye, bus....	98,000	1,304,000	111,000	313,000
Timothy Seed, lbs.	5,933,000	3,698,000	2,677,000	1,040,000
Clover seed, lbs.	328,000	40,000	108,000	227,000
Other Grass Seed, bus..	1,537,000	1,223,000	1,488,000	1,152,000
Flax Seed, bus.	7,000	27,000	4,000	.....
Hay, tons....	13,695	7,868	239	94
Flour, bbls..	939,000	1,064,000	596,000	181,000

CINCINNATI—Reported by D. J. Schuh, executive secretary of the Cincinnati Grain & Hay Exchange:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	1,454,600	2,209,200	383,600	625,800
Corn, bus....	431,600	313,600	343,000	198,600
Oats, bus....	526,000	658,000	220,000	332,000
Barley, bus..	4,200	2,800	.....	.....
Rye, bus....	44,800	61,600	8,400	9,800
Kaffir Corn, bus.	4,200	2,800	.....	.....
Hay, tons....	3,663	7,260	.....	.....
Feed, tons....	1,170	1,140	.....	.....

CLEVELAND—Reported by F. H. Baer, traffic commissioner of the Chamber of Commerce:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	55,535	66,237	1,100	9,514
Corn, bus....	70,115	57,176	20,525	42,498
Oats, bus....	134,623	138,418	4,013	39,442
Barley, bus..	6,667	66,237	.....	.....
Rye, bus....	.....	11,676	.....	.....
Hay, tons....	1,381	1,954	.....	24

DENVER—Reported by C. B. Rader, Secretary of the Grain Exchange:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	840,000	1,114,500	19,500	66,000
Corn, bus....	376,650	320,850	66,650	97,650
Oats, bus....	174,000	188,000	48,000	58,000
Barley, bus..	120,700	220,500	15,300	34,000
Rye, bus....	28,500	3,000	.....	1,500
Hay, tons....	220	560	.....	.....
Beans, cars..	.....	.....	98	59

DETROIT—Reported by C. B. Drbuillard, secretary of the Board of Trade:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	200,000	.....	3,000	.....
Corn, bus....	18,000	.....	8,000	.....
Oats, bus....	216,000	.....	10,000	.....
Barley, bus..	4,000	.....	.....	.....
Rye, bus....	10,000	.....	.....	.....

DULUTH—Reported by Chas. F. MacDonald, secretary of the Board of Trade:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	3,795,829	2,916,773	3,629,851	2,223,224
Corn, bus....	13,440	600,325	.....	324,320
Oats, bus....	3,705,949	1,646,226	2,535,368	346,242
Barley, bus..	3,200,260	602,353	2,261,971	296,780
Rye, bus....	429,935	1,526,542	53,769	1,188,282
Flax Seed, bus.	240,693	26,010	370,602	118,604
Flour, bbls..	827,340	912,135	881,260	984,255

FORT WILLIAM, ONT.—Reported by E. A. Ursell, statistician of the Board of Grain Commissioners:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	1,177,854	1,305,379	8,002,136	9,189,240
Corn, bus....	3,220	.....	3,220	.....
Oats, bus....	967,078	815,951	3,292,479	2,419,460
Barley, bus..	353,832	224,526	716,538	1,071,653
Rye, bus....	179,017	245,858	502,029	242,525
Flax Seed, bus.	66,453	27,106	578,456	238,778
Mixed Grain, lbs.	698,070	1,047,420	452,610	698,270

INDIANAPOLIS—Reported by Wm. H. Howard, secretary of the Board of Trade:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	861,000	1,352,000	312,000	489,000
Corn, bus....	1,497,000	923,000	1,208,000	846,000
Oats, bus....	2,036,000	2,550,000	1,414,000	1,780,000
Rye, bus....	24,000	31,000	21,000	22,000

KANSAS CITY—Reported by W. R. Scott, secretary of the Board of Trade:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	8,567,100	23,696,550	3,624,750	12,991,050
Corn, bus....	1,403,750	1,033,950	846,250	770,000
Oats, bus....	4,632,500	829,600	553,500	111,000
Barley, bus..	96,000	40,500	39,000	13,000
Rye, bus....	37,400	51,700	18,700	24,200
Bran, tons....	5,560	6,620	23,340	23,180
Kaffir Corn, bus.	182,600	105,600	199,000	185,000
Hay, tons....	30,324	27,240	11,868	5,460
Flour, bbls..	74,100	60,775	517,725	547,625

MILWAUKEE—Reported by H. A. Plumb, secretary of the Chamber of Commerce:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	1,089,200	2,551,000	1,201,933	1,735,684
Corn, bus....	430,680	1,163,000	179,893	689,022
Oats, bus....	3,152,250	2,169,000	1,532,014	527,684
Barley, bus..	2,443,535	616,000	551,345	93,500
Rye, bus....	73,165	168,385	33,800	93,390
Timothy Seed, lbs.	185,340	312,800	103,655	190,837
Clover Seed, lbs.	173,585	42,210	325,595	324,866
Malt, bus....	62,700	106,400	374,300	384,155
Flax Seed, bus.	12,870	4,290	.....	1,827
Feed, tons....	2,207	5,350	7,461	11,828
Hay, tons....	1,217	1,266	72	274
Flour, bbls..	247,230	342,940	41,322	75,520

MINNEAPOLIS—Reported by G. W. Maschke, statistician of the Chamber of Commerce:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	13,309,300	8,470,430	5,634,230	4,524,800
Corn, bus....	453,000	689,540	283,830	289,330
Oats, bus....	10,760,770	5,350,170	1,983,630	1,225,020
Barley, bus..	3,783,690	1,483,890	2,804,630	1,179,720
Rye, bus....	979,320	1,256,700	243,450	410,690
Flax Seed, bus.	1,094,440	269,000	232,480	32,840
Hay, tons....	2,343	1,738	158	243
Flour, bbls..	64,488	52,259	1,043,446	1,123,030

MONTREAL, QUEBEC—Reported by J. Stanley Cook, Secretary of the Board of Trade:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	10,972,330	11,956,041	11,490,398	7,258,470
Corn, bus....	19,650	10,088	.....	1,068
Oats, bus....	7,102,742	1,394,843	7,605,346	657,055
Barley, bus..	1,197,883	520,655	1,251,960	229,191
Rye, bus....	871,571	460,189	2,600,284	449,997
Flax Seed, bus.	142,562	49,305	.....	.....
Hay, Bales....	56,740	29,885	28,634	8,913
Flour, bbls..	197,972	274,002	399,574	389,354

NEW ORLEANS—Reported by S. P. Fears, chief grain inspector and weighmaster of the Board of Trade, Ltd.:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	468	2,364	1,112,791	2,082,649
Corn, bus....	210	50	440,340	249,580
Oats, bus....	51	56	76,378	20,025
Barley, bus..	8	2	.....	.....
Rye, bus....	9	21	.....	.....
Grain, cars....	.....	.....	.....	.....
Sorghums, cars	3	2	.....	.....
ex River Barges—	.....	.....	.....	.....
Wheat, bus..	841,985	.....	.....	.....
Corn, bus....	74,167	.....	.....	.....

NEW YORK CITY—Reported by H. Heinzer, statistician of the Produce Exchange:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	5,296,800	2,163,000	3,714,000	2,011,000
Corn, bus....	61,600	214,500	2,000	44,000
Oats, bus....	4,156,000	1,370,300	1,597,000	929,000
Barley, bus..	1,049,600	854,900	1,483,000	704,000
Rye, bus....	399,000	1,044,000	182,000	416,000
Clover Seed, bags	600	1,616	512	20
Flax Seed, bus.	51,500	266,800	.....	.....
Hay, tons....	5,341	5,387	1,121	5,436
Flour, bbls..	905,380	408,770	425,000	388,000

OMAHA—Reported by F. P. Manchester, secretary of the Omaha Grain Exchange:

	Receipts		Shipments	
	1925	1924	1925	1924
Wheat, bus..	3,494,000	9,969,400	2,525,000	7,014,000
Corn, bus....	750,400	1,765,400	711,200	1,430,800
Oats, bus....	3,904,000	1,514,000	1,538,000	818,000
Barley, bus..	225,600	129,600	158,400	64,000
Rye, bus.....	169,400	176,400	121,800	102,200

HAY, STRAW AND FEED

GERMANY AND CUBA LEAD

For the month of July, 1925, the latest period for which figures are available, Germany is again seen to be the best foreign customer of United States feed mills. In July, Germany bought 941,060 pounds of non-medicinal feeds. Cuba, with a purchase of 900,689 pounds was second in prepared feed volume but first as to bran and middlings, with a purchase 142 tons for the month. Other customers who helped keep the midsummer volume of prepared feed sales up are United Kingdom, 212,000 pounds; Canada, 201,753 pounds; Panama, 141,483 pounds; Chile, 78,990 pounds, and the Netherlands, 60,410 pounds.

HAY MARKET DULL

In their letter for the week ending September 12, Toberman, Mackey & Co., of St. Louis, Mo., say: The arrivals of hay on both sides of the river are fairly liberal. Market, however, is dull and in buyers' favor on everything except very choice qualities. The latter grades we advise shipment of but hold back low grades.

Clover—Arrivals light. Market steady on good grades. All medium grades hard to place.

Alfalfa—Good demand for choice qualities; medium grades neglected.

Prairie—Market dull, considerable on hand and lower values ruling.

EGYPTIAN CLOVER HAY

Naturally, any leguminous hay coming into use as a feed for dairy and other stock will be compared with Alfalfa. Thus it is that Berseem Clover, which occupies annually more than 29 per cent of the total tilled lands of Egypt, is now the object of much experimentation in the West, where tests, notably those at the Berkeley, Calif., station, have shown this hay a very strong competitor of Alfalfa under certain conditions. Berseem and Alfalfa resemble each other in drought and alkali tolerance, repeated croppings from the same plants under irrigation, high production of palatable and nutritious feed, both green and cured, and high value as green manure in crop rotations.

Points of dissimilarity, like growth period and persistence, place them in separate fields of usefulness. Alfalfa, a perennial, requires from one to two seasons to become thoroughly established at maximum production, while Berseem, an annual, produces its crops mainly through the winter and spring of a single crop year. It can be plowed under at any time during the period of its growth and quickly incorporated into the soil to the immediate advantage of the crops which follow in rotation.

All kinds of stock and poultry relish Berseem, and in some cases, prefer it to Alfalfa, states Berkeley Bulletin No. 389.

Berseem hay is very brittle when cured and is not so attractive in appearance as Alfalfa hay. It has not been altogether satisfactory for sale in the market because of its tendency to break and pulverize when baled. It is however a very excellent feed.

NINETEEN MILLION FOR FEED

Exports of various classes of feeds and fodder from the United States during the first seven months of this year amounted to a \$19,409,000 value, divided as follows: Prepared feed (not medicinal) \$487,000; oilcake and oilcake meal \$18,033,000; bran and middlings, \$100,000; screenings, \$38,000; other millfeed, \$445,000; hay, \$306,000. These items represent a total value about \$8,000,000 greater than the corresponding total for the first seven months of 1924.

Oilcake and oilcake meal are largely responsible

for the 57 per cent increase over last year's total. In the 18,033,000 total, are included: Cottonseed cake, \$6,070,000; Linseed cake, \$8,826,000; other oilcake, \$220,000; cottonseed meal, \$2,427,000; linseed meal, \$207,000; other oilcake and oilcake meal, \$283,000.

FRED SALE NAMED SECRETARY OF
HAY ASSOCIATION

Fred K. Sale, who has been assistant secretary of the National Hay Association for the past four years, has been named by that association's Board of Directors to succeed J. Vining Taylor as secretary-treasurer. He is the son of James W. Sale, a former president of the hay association. Prior to



FRED K. SALE

entering the service of the association, Fred Sale was connected with the Crabbs Reynolds Taylor Company of Crawfordsville, Ind., and also the Goodrich Bros. Company, Winchester, Ind. During the late war he served two years with the United States forces as a junior commissioned officer and was overseas for 10 months.

With the schooling in the association's affairs which Mr. Sale naturally acquired while assisting Mr. Taylor, he has been ably fitted for the office. His contact with members of the trade has been continuous and sufficiently intimate to insure their feeling that responsibility for the association's work has been placed in capable and friendly hands.

TWO LETTERS TO COVER SHIPPING
DELAYS

By JOHN T. BARTLETT

Even with the most efficient flour and feed wholesaler, possible unavoidable and embarrassing delays in filling orders for customers are bound to occur. No feasible system for avoiding them, yet properly holding business, has ever been or probably ever will be devised. Take the case of the concern which has been notified by the manufacturer that certain stock will be delivered, say by May 15.

An order comes in on May 2 for this item. The house will hardly turn down the order without an attempt to take care of it. It may, if it is properly regardful of the dealer's position, write an explanatory letter showing that delay in filling is unavoidable. The stock will be shipped by May 15,

when a supply has arrived from the manufacturer, unless the customer directs to contrary. He will not in a great many instances.

The customer may cancel the order—and again he may not. Suppose, however, that the manufacturer fails in delivering—or the railroads do. In consequence, May 15 comes, and there is no stock for delivery to customer. It is very easy at this point to "fall down" and seriously impair the good will of the customer, if not alienate it entirely. In other words, it is often the course to hope for the arrival of stock daily, planning to send it the minute it comes in.

Meanwhile, at the other end, the purchaser may be chafing as all his plans are thrown into disarrangement. After further delay, without explanation, the stock arrives. The dealer accepts it, "kicks" or perhaps in silence nurses ill-will against the house.

Now, a great deal of the customer's ill-will can be chafing as all his plans are thrown into disarrangement of having a couple of standard letter-forms for use in such situations. In a case which has come to this writer's attention, the first letter goes to the customer immediately when order for goods not in stock is received. This states when they will be in stock, and explains that, except as other directions are received from the customer, the house will enter the order and ship as indicated.

When, however, the manufacturer "falls down," and the house, no matter what its intentions, cannot ship as it has said it would, this letter is used. Like the first, it is not a processed typewritten letter. The same wording over and over again is used in letters, but each is personally typed.

This is the second letter. In quoting, we are leaving blank spaces. The readers will understand how these are filled in for use.

Dear Mr. Jones:

Owing to the fact that the manufacturers have disappointed us in making delivery of No.—, it will be impossible for us to make shipment within the time specified in our previous letter to you.

However, we expect to have a new supply on hand the first part of next week, possibly sooner, and we assure you that just as soon as this shipment arrives, your order will be given prompt attention.

We are very sorry for any inconvenience this delay may cause you, but we feel sure that when you see the— and consider the excellent quality and the large saving you have made by purchasing it from us, you will feel well repaid for having waited for it.

Your patronage is very much appreciated, Mr. Jones, and we will do everything we can to make your order satisfactory in every respect.

In the letter quoted, there is reference to a price advantage. In practice, of course, this cannot always be used. It is inserted here because, on some occasions, it will be in line with the facts. Notice how the letter offers something to mollify the customer and reconcile him to the delay. It is good psychology and actually found workable in practice.

It may cost a little in stenographic labor to use the system here described, but what it saves in customer good-will pays for it a thousand times over.

GERMAN grain purchases in anticipation of the new tariff rates are maintaining demand in European grain markets, according to cabled information from H. B. Smith, special representative of the Department of Commerce. Low stocks and delayed local harvests are also factors in sustaining present price levels on nearby supplies. Buyers have discounted the new Canadian wheat and are restricting forward buying of other foreign wheat, feeling that Russia is sure to offer supplies at competitive prices. Samples of Russian wheat received so far contain little foreign material.

FEDERAL HAY INSPECTORS' SCHOOL HELD AT KANSAS CITY

The Federal hay inspectors' school conducted at Kansas City by E. C. Parker of the United States Department of Agriculture, Washington, D. C., H. H. Whiteside, division Federal hay inspection supervisor, of Chicago, Ill., and George Postmus, Federal hay inspector at Kansas City, Mo., closed September 5. The student inspectors were given two weeks of training in the interpretation of United States hay standards and in the rules and regulations of the Secretary of Agriculture governing the inspection of hay. The final and third week of this school was devoted to the inspection of many carlots of hay on the Kansas City hay team tracks. The Federal hay inspectors trained at this school will be located at Denver, Colo., Ogden, Utah, Oklahoma City, Okla., and in the State of Texas, under arrangements with the Denver Grain Exchange, the Ogden Grain Exchange, the Oklahoma State Market Commission and the Texas Department of Agriculture, which organizations have adopted the United States hay standards that were made official by the Secretary of Agriculture September 1, 1925.

Representatives from agricultural colleges and state departments of agriculture from the states of Iowa, Nebraska, Minnesota, Oregon, Texas, North Carolina and Kansas received training at this school also for the purpose of demonstrating United States hay standards and giving publicity thereto in their respective territories.

The Department of Agriculture has just concluded a hay inspectors' school at Montgomery, Ala., where a number of inspectors were trained and licensed to conduct shipping point inspection, as well as terminal market inspection at Birmingham, under joint Federal-state arrangements with the State of Alabama. Under date of September 8, 1925, another Federal hay inspectors' school will commence at San Antonio, Texas, under the direction of K. B. Seeds and W. H. Hosterman of the Hay, Feed and Seed Division, Bureau of Agricultural Economics, United States Department of Agriculture.

Kansas City for such inspection on the part of the Federal hay inspector.

Country shippers, farmers, and in fact all consignors of hay desiring to have their hay inspected by United States standards and under the rules and regulations of the Secretary of Agriculture governing such inspection, may consign hay to any member of the Kansas City Hay Dealers Association in the same manner as they are now accustomed to consign hay, with the added request to the dealer that they desire to have Federal inspection and a certificate issued upon such hay, or the request for such inspection may be made direct to the Federal hay inspector.

Arrangements have been made by the Depart-



ANALYZING HAY BALES IN INSPECTORS' SCHOOL

ment for the complete plugging of carlots of hay when a thorough and complete inspection and a certificate of complete inspection is desired by either the consignor or the consignee. Consignors may ship hay to Kansas City under these arrangements, either for sale in Kansas City or for rebilling out of Kansas City, as they desire, providing such shipments are made to any member of the Kansas City Hay Dealers Association.

The inspection fee charged by the Federal hay

the complete plug. The service is one which is sure to be of practical benefit to those in the trade as time goes along, and is likely to be well patronized.

VALUE OF SOUTH'S COTTONSEED AS STOCK FEED

Under the above caption, P. O. Davis of Auburn, Ala., has written an article which will prove interesting not only to the southern feed dealer but to the northern one as well. Because of this general interest, we are reprinting parts of it, as published in a recent issue of the *Manufacturers Record*:

"For several months L. T. Wells, dairy specialist

for the Extension Service of the Alabama Polytechnic Institute, Auburn, has been making a thorough study of cottonseed meal as a feed, not only for dairy cattle and beef cattle but for horses and mules. He found that the South produced last year approximately 1,515,918 tons of cottonseed meal, which at \$40 a ton was worth \$60,636,720. Since only a part of the total seed produced is ground into meal, and that in manufacturing this meal 979,000,000 pounds of cottonseed oil, 941,000 tons of hulls and 670,000 bales of linters were secured, this figure does not by any means represent the total contribution to the agricultural wealth of the South by cottonseed. Mr. Wells found further that 50 per cent of this meal is either used as fertilizer or sold outside of the South.

"The facts compiled by Mr. Wells show conclusively that southern farmers do not appreciate their own product. There are many who are feeding it to dairy cattle, while still fewer are feeding it to beef cattle, horses and mules; but neither group is sufficient to take care of the needs of the South.

"On the other hand, there are those who are using cottonseed meal as a direct fertilizer, which is a distinct economic loss, because cottonseed meal is a feed and not a fertilizer.

"Based on present prices, the fertilizer value of cottonseed meal is only about \$25 per ton, while the feeding value is from \$40 to \$50. If 65 per cent of its fertilizer value is saved from the manure, and this value added to its value as a feed, the total feeding value will be increased to \$56.25 to \$66.25 per ton. Southern soil is hungry for this nitrogen, which is the most expensive plant food farmers buy.

"And this is not all. Year after year southern farmers have imported great quantities of feeds for their horses, mules and other livestock. They have done this despite the fact that cottonseed meal itself when properly used is one of the best feeds available for horses and mules. Of course, it is an excellent feed for dairy cattle, for beef cattle and sheep, but since this is generally known I shall refer to its value as a feed for horses and mules.

"Fortunately, the agricultural experiment stations of the South and of other sections have been studying this question. Up in Iowa, where the inclination would naturally be in favor of other feeds, the Iowa Experiment Station found that with corn at 50 cents a bushel and oats at 40 cents a bushel, cottonseed meal fed to work horses at the rate of



INSPECTORS' SCHOOL MAKING PLUG CAR INSPECTION

ture. Inspectors trained at the San Antonio school will operate under joint Federal-state arrangements with the state Department of Agriculture for the State of Texas and with the United States Army.

The Bureau of Agricultural Economics, U. S. Department of Agriculture, under the management and direction of George Postmus, Federal hay inspection of Kansas City under the local management and direction of George Postmus, Federal hay inspector, whose office is located at 1513 Genesee Street, Kansas City. Applications for either partial plug inspections or complete plug inspections at Kansas City may be made by letter, telegraph or telephone to Mr. Postmus at the address above given, or instructions may be sent to consignees in

inspection service will be in the amount of one dollar per car for either a partial or a complete inspection and the issuing of either a partial or a complete inspection certificate. The partial inspection will be based upon the present plugging system now being used by the Kansas City Hay Dealers Association, which will permit the inspector to examine some 50 or 60 bales of hay in each car. In case the applicant for inspection desires a complete plug and a complete inspection by means of which the inspector may see and grade approximately 100 to 150 bales in each car representative of the entire carlot, an additional charge of \$1.25 will be made by the association for the labor involved in making

1 pound per day was worth \$60 per ton. These prices for corn and oats prevailed when the experiment was conducted, but they are far below those prevailing at present. Consequently, the feeding value of cottonseed meal would be much above that of \$60 per ton. The Iowa people found also that the health, spirit and endurance of animals consuming cottonseed meal in moderate amounts was just as good as when they were fed a ration of corn, oats and hay without the meal.

"The Louisiana Experiment Station conducted a test in which they fed one to two pounds of cottonseed meal per day to work stock with good results. The North Carolina Station replaced two pounds of corn with one of meal with excellent results, and the United States Department of Agriculture found that cottonseed meal has no ill effects when fed to brood mares.

"These and other experiment stations have found that four pounds of corn mixed with one pound of cottonseed meal is equal to seven pounds of hulled oats.

"Therefore, the feed value of cottonseed meal for work stock is determined. The evidence stated is not mere opinions, but the answers given by horses and mules when asked through experiments if they like cottonseed meal and if it is good for them.

"Dr. Tait Butler, editor of the *Progressive Farmer*, has probably studied this question more than any other man. His recommendations are very specific. He says that mules and horses may be fed cottonseed meal at the rate of one to two pounds per day, and that each pound of meal should replace two pounds of corn. At present prices this meal is worth approximately two cents a pound, while corn is worth more than two cents a pound. Therefore, if one pound of meal replaces two of corn, the total cost of the ration is materially reduced and the farmer receives a larger net profit from his horses and mules.

"The cotton-growing states of the South have over 8,500,000 horses and mules. If to each of them is fed cottonseed meal at the rate of one and one-half pounds per day, the South's entire production of cottonseed meal would more than be utilized, leaving none for its more than 7,000,000 dairy cattle, 13,000,000 beef cattle and 7,000,000 sheep. Hence the southern farmer will be consuming his own product. Furthermore, his feed bill will be less. It will not be necessary for him to buy so much corn and pay for it, as well as the transportation costs and middlemen's profits, in getting it from where it was produced to his farm.

"In view of all these facts, the Alabama Extension Service, under the leadership of Mr. Wells, will conduct a systematic campaign to increase the feeding of cottonseed meal in Alabama. The farm bureaus will help."

N. Y. FEED MARKET WEAKER

By C. K. TRAFTON

While the feed market as a whole has continued irregular and unsettled, little progress has been made although there was often an undertone of weakness. In the main, the offerings of wheat feed were larger but more particularly of Spring but especially from resellers who had become somewhat overloaded as supplies had accumulated far too rapidly while buyers were showing indifference. In some quarters this was partly ascribed to better weather and improved pasturage. In addition it was averred that millers had become more willing to sell for forward shipment prompted by the fact that they were stimulated by the receipt of long wished for shipping instructions on flour. This in turn prompted them to resume grinding on a larger scale as a result of the seasonable enlargement in the arrivals of Spring wheat.

Recently the movement has been heavier on both sides of the border but notably in Canada where farmers have been selling freely at lower cost. Linseed meal has been dull as usual at this season when buyers hold off. Barring a small rally lately the general trend in cottonseed meal was downward which was ascribed to free or aggressive selling for forward deliveries mainly for southern account prompted by the brighter outlook for a big-

ger cotton crop. Some of the bears became oversold, leading to a slight recovery.

There has been little inquiry for corn feeds as generally the case at this stage as buyers were making lower bids anticipating reduced cost as harvest time draws near.

Toward the close the market for wheat, feed and cottonseed meal became stronger with more demand. This was particularly true of middlings which was ascribed to the dry and intensely hot weather west. Patently the big rise in cotton was mainly responsible for the buoyancy in meal.

WESTERN GRAIN COMPANY BUILDS NEW PLANT

By GLEN PIERCE

With a prevailing tendency toward increase in feed exports it necessarily follows that there must be an ever increasing production. Domestic needs have continued to increase as the more remote farming sections have gradually become educated to the benefits of properly prepared feeds, and with the markets enlarging at home as well as abroad there has been a good opportunity in recent years for developing the feed mills' and the feed dealers' trade.

The small and medium sized feed concerns de-

Weighing is taken care of by several platform scales and a 200-bushel hopper automatic scale for receiving weights. This equipment is supplemented by a general line of feed mill and elevator machinery.

The company is a branch of the Huffine Grain Company, which has been in the wholesale grain and hay business in Kansas City, Mo., since 1885. They specialize in carload lots of grains and in poultry feeds, cattle feeds and other ground grain products, covering the southern California territory in their distribution.

While their new plant in the Central Manufacturing District in Los Angeles was being erected they occupied temporary quarters in the Terminal Tower Building, and succeeded in transferring operations to the new building, when it was completed, with practically no interruption in production. The directors of the Huffine Grain Company are J. I. Huffine of Long Beach, Benjamin M. Huffine of Kansas City, J. Earl Huffine and Everett A. Huffine of Los Angeles. The first named is president and general manager. He lived and engaged in the milling business in Kansas City (where his brother now attends to the branch office and warehouse) from 1895 until 1910. He then went to Oklahoma, where he built and operated several



NEW ELEVATOR, FEED MILL AND WAREHOUSE OF THE HUFFINE GRAIN COMPANY, LOS ANGELES, CALIF.

rive a proportionate benefit from the export trade even though the individual dealer or manufacturer may not have the facilities to engage in the export business. After all, exporting is essentially the field of the large company; but the more the large operator ships out of the country, the greater will be the amount of domestic territory in which the local operator is unimpeded by his larger competitor. In the long run all receive the benefit.

Along the Pacific Coast there has grown up a particularly lucrative market for dealers in feeds, and the fact has been demonstrated by the number of successful concerns engaged in the business there. In the accompanying picture is shown the mill, elevator and warehouse just completed, owned and operated by the Huffine Grain Company, at Los Angeles, Calif. Here grain and hay are handled, and millfeeds and Graham flour are manufactured. The elevator has storage capacity of 50,000 bushels of grain, and 20 carloads of sacked feed can be stored at one time. Every effort was made when erecting the company's plant on Fiftieth Street to make it efficient and up-to-date.

The plant is equipped with modern machinery, and has a large Gruendler Patent Crusher directly connected to a 50-horsepower motor. The crusher turns out about 70 sacks of chop per hour and does the pulverizing in very good shape. There is also one Wagner Barley Roll and one stand of Allis Double Rolls, 10 by 24, for making Graham flour from wheat.

One flour packer of S. Howe's make is also in use, as well as one Invincible Separator and a No. 6 Monitor Receiving Separator. For use in bolting table cornmeal the company has a McKain Reel.

elevators until the time at which he went to California.

J. I. Huffine has been actively engaged in the grain and milling business for the last 35 years and still feels that despite the present success of the business his greatest future is ahead. The outlook for increased output is good and so far the results have more than justified the expansion of properties undertaken for the purpose of increasing production.

HAY WEAKER IN NEW YORK

By C. K. TRAFTON

One of the most troublesome, as well as disorganizing, developments was the fairly large movement to this market early in the month of poor grades of hay, especially via canal or river boats. It was again asserted that much of this inferior trash was from Canada, and in numerous cases, the quality was so bad as to make sales almost impossible even at big discounts on costs. In many instances the hay was unfit for feeding purposes and hence the sums received were insufficient even to pay freight and other charges.

A material part of the new hay received was of unsatisfactory color, showing stains as a result of too much rain at harvest time. As a result there was frequently a scarcity of choice or No. 1 Timothy as well as superior Light Clover Mixed; consequently, the strictly prime descriptions were generally salable promptly at comparatively firm figures. Therefore, there was an abundant supply of No. 3 or under which was often low of sale unless at reduced quotations.

While the official report showed only a small

production, viz., 91,000,000 tons, against 92,600,000 tons in the July report, and 112,450,000 tons harvested last year, available supplies were generally considered ample, partly because the second crop proved to be better than anticipated. Moreover, the weather was said to be favorable for pasturage. Afterwards there was more demand and greater firmness chiefly on reports of more inquiry from the south as a result of the hot dry weather.

OFFICIAL UNITED STATES HAY STANDARDS

The Secretary of Agriculture has promulgated an order making the standards for Timothy, Clover and Grass hay; Alfalfa and Alfalfa Mixed hay; Johnson and Johnson Mixed hay; Prairie hay; and Mixed hay, which were recommended by the Bureau of Agricultural Economics on July 1 the official standards of the United States for the inspection of hay, effective September 1, 1925. Mimeographed copies of the standards may be obtained from the Bureau of Agricultural Economics, U. S. Department of Agriculture, Washington, D. C., or from any licensed Federal hay inspector.

It is also planned to issue a Hay Standards Handbook which will contain the standards, a description of certain important features of them, and of important features of the Federal Hay Inspection Service. This handbook will probably be ready for distribution in the next month or two.

NEW FEED BRANDS

"BILL BRAND B. B." poultry and stock food. Maritime Milling Company, Inc., New York, N. Y. Filed January 29, 1925. Serial No. 208,816. Published July 28, 1925.

"BALLARD'S" wheat flour, pancake and buck-wheat flour, self-rising flour, wheat feeds and mill



feeds, i. e., bran, shorts, middlings, and chicken feeds, including scratch and the so-called mashes, and also sweet feeds for livestock. Ballard & Ballard Company, Louisville, Ky. Filed March 2, 1925. Under 10-year proviso. Serial No. 176,815. Published August 4, 1925.

"SOMETHING TO CROW ABOUT" poultry food. The American Agricultural Chemical Company. New York, N. Y. Filed June 6, 1925. Serial No. 215,393. Published August 4, 1925.

Trademarks Registered

201,450. Feeds for poultry, cattle and horses. Phelps & Sibley Company, Inc., Cuba, N. Y. Filed March 16, 1925. Serial No. 211,122. Published May 19, 1925. Registered July 28, 1925.

201,962. Feeds for livestock, middlings, feeds for poultry, corn, barley and Alfalfa, wheat flour. Warner Moore & Co., doing business as Dunlop Mills, Richmond, Va. Filed March 5, 1925. Serial No. 210,-

570. Published May 26, 1925. Registered August 11, 1925.

202,038. Poultry foods, namely, laying mash and scratch grains. Farmers Syndicate, Inc., Cortland, N. Y. Filed January 29, 1925. Serial No. 208,802. Published May 26, 1925. Registered August 11, 1925.

202,159. Hog feed Empire Milling Company, Minneapolis, Minn. Filed March 9, 1925. Serial No. 210,721. Published June 2, 1925. Registered August 18, 1925.

202,477. Dairy and poultry feeds. Phelps & Sibley Company, Inc., Cuba, N. Y. Filed March 14, 1925. Serial No. 211,050. Published June 9, 1925. Registered August 25, 1925.

202,481. Meal for use in poultry mashes. The Lamar Alfalfa Milling Company, Lamar, Colo. Filed March 7, 1925. Serial No. 210,671. Published June 16, 1925. Registered August 25, 1925.

202,482. Stock feed. Royal Feed & Milling Company, Memphis, Tenn. Filed November 13, 1924. Serial No. 205,230. Published June 9, 1925. Registered August 25, 1925.

202,669. Chicken feeds, namely mash and scratch. West Texas Fuel Company, Inc., El Paso, Texas. Filed May 1, 1924. Serial No. 196,417. Published June 16, 1925. Registered September 1, 1925.

202,670. Stock and poultry feed. Washburn Crosby Company, Minneapolis, Minn. Filed March 4, 1924. Serial No. 193,259. Published July 22, 1924. Registered September 1, 1925.

202,683. Meat scraps, digester tankage and animal feeds. Riverdale Products Company, Chicago, Ill. Filed February 2, 1925. Serial No. 208,999. Published June 23, 1925. Registered September 1, 1925.

A feed mill is to be erected at Greene, Iowa, by E. L. Bruce.

A feed mill is to be opened at Le Mars, Iowa, by Francis Delaney.

Arthur Haffy has bought the feed store of James McCarty at Carthage, Ill.

A feed mill has been installed at Dumont, Iowa, by the Farmers Grain Company.

Capitalized at \$25,000, the Central Flour & Feed Company was incorporated at Colfax, La.

A feed business is to be established at Salem, Ark., by M. A. Woods and L. H. Hollingsworth.

Extensive repairs are to be made to the warehouse of B. Dadmann, feed dealer of Whitewater, Wis.

A branch feed and flour warehouse is to be built at Edgar, Wis., by L. E. Crane of Chippewa Falls, Wis.

Capitalized at \$40,000, the Holmstrom Feed & Seed Company has been incorporated at Randolph, Kan.

The feed, flour and provision store of Mrs. F. Gutsch at Cudahy, Wis., has been bought by Joseph Bachnick.

The Leper Feed Store and produce station at Beatrice, Neb., have been bought by John H. Heist of De Witt.

A new feed and grocery store has been opened at Sumiton, Ala., by the Cash Grain Company of Jasper, Ala.

A wholesale feed and flour business is being opened at Bentonville, Ark., by Jack B. Chase and Paul Gilliam.

The Ouachita Flour & Feed Company, Inc., has been incorporated at Monroe, La. The firm is capitalized at \$300,000.

A flour, feed, hay and produce business has been opened at Hancock, Wis., by M. S. Walker, H. P. Walker and H. Preno.

The capital stock of the Springfield Flour & Feed Company of Springfield, Mo., has been increased from \$60,000 to \$80,000.

The feed and flour business at Bristow, Okla., of Naifeh & Son has been bought by B. Henson, wholesale flour and feed dealer.

A new warehouse and distributing sheds are being erected at Walnut Ridge, Ark., by W. R. Bench, who conducts a feed and coal business there.

George R. Dabney has filed articles of incorporation at Newport News, Va., as the Southern Feed Company. The firm is capitalized at \$50,000.

A dairy feed unit is being operated by the New Richmond Roller Mills Company of New Richmond, Wis., with E. H. Sather in charge of manufacturing and sales.

A chicken feed and stock mill with daily output of 20 tons is to be built at Columbia, Tenn., for the Columbia Machine Works & Feed Mill, of which John B. Ashton is proprietor.

To conduct a feed and coal business, the W. G.

Block Company has been incorporated at Davenport, Iowa, capitalized at \$250,000. F. O. Block is president.

Russell Ward has resigned as sales manager of the Quisenberry Feed Manufacturing Company of Buffalo, N. Y., and will engage in the trade on his own account.

The Harrison Feed Company of Greenville, Ohio, has been reorganized and is to be conducted under the management of Mrs. Emma E. Harrison and her son, Martin Wesley.

Bonified & Oitker, owners of the Farmers Feed Mill at Barry, Ill., have dissolved the firm, with George Oitker retiring. Mr. Bonified will conduct the business in the future.

The old feed mill at Payette, Idaho, which C. H. Bowman recently purchased has been overhauled. It is to be used in the manufacture of stock and chick feeds and table cereals.

W. J. Evans and Abner Branding of Granite City, Ill., have bought the New Madrid Mill & Feed Company of New Madrid, Mo., from E. E. Reeves and H. E. Broughton at a cost of \$20,000.

The Farmers Supply Company has been taken over by the Oldham Supply Company which is capitalized at \$10,000, at La Grange, Ky. The firm will handle feeds, flour, seed and farm implements.

J. A. Christensen, Norman Chandler, H. S. Benedict, P. I. Ferguson and H. E. Crockett have incorporated at Delta, Utah, as the Utah Molasses Feed Corporation. The firm is capitalized at \$750,000.

Roy Pierce has entered the hay business as receiver and shipper at Cincinnati, Ohio, as the Ohio Indiana Hay Company with offices in the Sterne Building. Mr. Pierce was for years connected with the hay interests there.

Permits are requested by the following to sell feeds in Oklahoma: Staley Milling Company, Kansas City, Mo.; Star Mill & Elevator Company, Hennessey, Okla.; Tulsa Cereal Company, Tulsa, Okla.; Briggs Seed Company, Inc., McAlester, Okla.; Slemmer Flour Mills, Okeene, Okla.

The State Board of Agriculture of Oklahoma has granted permits to sell milled and mixed feeds in Oklahoma to the Chickasha Milling Company, Chickasha, Okla.; Farmers Union Exchange, Anadarko; Massey & Sons, Norman; Love & Gillenwater, Woodward; and E. T. Brantley, Hollister, Okla.

J. Vining Taylor, who for 24 years served as first assistant secretary and then secretary of the National Hay Association, has become associated with the Star Hay Company of Los Angeles, Calif., and in a letter to the trade gives some interesting sidelights on that company. The company is composed of W. E. Starr, president, who was formerly in the hay business as Homan & Starr at Lodi, Ohio. He came to California in 1920 and in 1922 formed a partnership with O. R. Ericsson and P. J. Rieger, one year later incorporating under the name of the Star Hay Company. Paul J. Rieger, vice-president, has been in the hay business since 1909. He came with the Star Hay Company in 1922. W. H. Jordan, director, has been with the hay business since 1911. In 1924 his firm, Russell & Jordan, sold out to the Star Hay Company. Mr. Taylor would seem assured of his hope that his new association would justify the change he has made.

CALLS I. C. C. DICTATOR

Kenneth F. Burgess, general solicitor of the Chicago, Burlington & Quincy Railroad, declares that under the Hoch-Smith Resolution, the Interstate Commerce Commission not only controls railroad destinies, but becomes "the economic dictator of this country's progress."

He called attention, in his address, August 31, before certain members of the American Bar Association meeting in Detroit, Mich., to the fact that the Hoch-Smith Resolution declares that "the true policy in rate making to be pursued by the Interstate Commerce Commission in adjusting freight rates is that the conditions which at any time prevail in our several industries should be considered insofar as it is legally possible to do so to the end that commodities may freely move," and shall give due regard "to the general and comparative levels in market value of the various classes and kinds of commodities as indicated over a reasonable period of years."

"This joint resolution has been variously interpreted," said Mr. Burgess: "It has been described as 'economic rate making.' Under this view it not only means the traffic manager of the railroads, but also that an agency has been set up as the economic dictator of this country's progress."

U. S. EXPORTS NEARLY 25 PER CENT OF CROP

Wheat grindings and flour production in Canada and the United States and exports from these countries, from July, 1924, to June, 1925, (12 months) were as follows: Wheat ground, Canada, 81,930,000 bushels; the United States, 567,211,000 bushels. Flour produced, Canada, 18,229,000 barrels; the United States 124,020,000. The mills in Canada required 269.7 pounds of wheat to produce a barrel of flour; those in the United States, 274.4 pounds. Canada exported 9,967,000 barrels of flour, or 54.7 per cent of the quantity produced; the United States exported 13,896,000 barrels, or 11.2 per cent of the flour milled. Canada exported 149,996,000 bushels of wheat grain, or 57.2 per cent of the production; the United States exported 195,490,000 bushels of wheat grain, or 22.4 per cent of the crop.

HOW TO FIGURE THE COST OF TIGHT BELTS

By N. G. NEAR

In power transmission through belting we have some rather peculiar conditions to contend with. Run the belts tight and the bearings will consume too much power. Slacken the belt and it may slip and we then have the power loss due to belt slip which amounts to some extent and still save power by running the belt rather loose. But, again, by permitting slip, we are permitting our belts to wear away faster, and the cost of belt renewal may be considerable. It is evident, then, that the ideal condition is to run belts slack if possible, at the same time preventing slip. This condition is possible and is being successfully accomplished by means of proper belt care.

To emphasize the value of running belts properly, I have developed a formula which gives the money saved per year by converting a tight, slipping belt drive into a loose, non-slipping drive. This formula includes the cost due to power absorbed by the journals and the power lost through slip. It does not include the cost of belt wear, though, that is a factor that cannot easily be computed mathematically, if at all. Here is the formula:

$$\text{Cost per year in dollars} = \frac{WV^2(T-t)SP}{17,688 Tt} \times \frac{CND}{100}$$

Where W = Weight in pounds of the engine flywheel;

V = Velocity in feet per second of the periphery of the flywheel while running at normal speed;

S = Per cent of belt slip saved due to belt care and improved methods. For example, if the belt slipped 4 per cent while running slack, the saving would be (4 minus 2 equals 2) 2 per cent; which should be used in the formula;

P = Horsepower of the engine;

C = Cost of power in dollars per horsepower hour.

N = Number of working hours per day;

D = Number of working days per year;

T = Time in seconds required for the engine flywheel to come to a dead stop after shutting off steam or gas. The steam or gas should be shut off as quickly as possible. Engine should be driving the belt and pulleys only and driven machinery should be thrown off of the line if possible, in order not to interfere with the test. T, then, is the time required to come to a stop with belt running slack;

t = Time in seconds required for the flywheel to come to rest with belt running tight.

It is evident that T will be greater than t, because with the lessened power consumption of the bearings it will take longer for the stored energy in the flywheel to be consumed. This formula requires at least four tests: First, the belt slip

while running tight; second, the stopping time while running tight; third the belt slip while running slack, and fourth, the stopping time while running slack. Should it be found that there is more slip when running slack than when running

SP

tight the value — would be negative, and it may

100

be found that the advantages of slack running are lost. Whatever happens, this formula will tell the truth.

Let us choose a concrete example, where:

W = 3,000 pounds;

V = A mile a minute, 88 ft. per second;

S = 3 per cent;

P = 200 h.p.;

C = \$.015;

N = 12;

D = 300;

T = 180 second;

t = 150 seconds;

3,000x88x88(180-150) x 3x200

17,688x180x150 100

\$.015x12x300=\$472.

A saving of \$472 per year should make a test like this well worth the while of any power plant engineer.

THRONE ROOM AT THE INDIANA STATE FAIR KING CORN AND QUEEN ALFALFA

By N. M. RUDEAUX

King Corn and Queen Alfalfa sat enthroned at the entrance of the agricultural building at the state fair this year. Guy Cantwell of Gosport, member



KING CORN AND QUEEN ALFALFA, INDIANA STATE FAIR

of the state board of agriculture and director of the agricultural department of the fair, and Walter Q. Fitch, state leader of farmers' institutes of Purdue University, were busy supervising the installation of the exhibit. The feature display in the agricultural department at this year's fair is a large throne room, where the figure of King Corn, is seated with Queen Alfalfa kneeling before him and being crowned, the action being symbolic of the advancement that has been made recently in the cultivation of Alfalfa hay in Indiana.

The setting is covered by a canopy of alternating strips of yellowed oats and green Alfalfa, and grouped about the throne of King Corn are statues representing other leading Indiana crops. The design was created by Fenton Stewart, Benton County boy, who has been a student at the Art Institute in Chicago. His work in designing the Benton County exhibit last year attracted considerable attention at the 1924 state fair.

The agricultural department of the fair this year

is offering special premiums for county educational exhibits, which must graphically show some form of co-operative effort made by the farmers for the improvement of agriculture. Eight county exhibits have been entered in the competitions for awards that will be made by a committee, composed of L. B. Clore of the Federal Land Bank, Louisville, Ky., America's first corn king; Dean J. H. Skinner of Purdue University; and Perry H. Crane, secretary of the Indiana Farm Bureau Federation. Many interesting exhibits are shown.

SMUT IS TAKING TOLL

"The loss from stinking smut in wheat is on the increase; last year was bad but this year is worse," says H. M. Bainer, director of the Southwestern Wheat Improvement Association. Continuing he says, "Last year 12 per cent of the Kansas wheat crop received on the Kansas City market was smutty and for this year it has increased to 15 per cent, and about the same percentage of losses holds true in Oklahoma and the Panhandle of Texas. Conservative estimates place the loss on account of wheat smut in Kansas and Oklahoma this year at \$10,000,000.

"The past year has been favorable for smut and serious losses have been reported from all over the wheat belt. In some sections the losses have run as high as 50 to 75 per cent of the entire crop. This decrease in yield represents only part of the loss as the small crop remaining sells at from 2 to 15 cents a bushels below similar wheat that is free from smut.

"It is generally known that stinking smut is sown with the seed and that good crops cannot be expected from smutty seed, no matter how well the seedbed is prepared or how favorable are the other conditions. Proper disinfection of the seed will prevent smut, and with so much smut all over the country no one can afford to risk sowing seed without treatment, unless it is known to be absolutely free from smut.

"The new copper carbonate dust method of seed treatment is considered better than any of the old methods. Copper carbonate is a fine, poisonous dust. In order to prevent smut, the copper carbonate dust must be mixed with the seed so every kernel is thoroughly coated. This dust is used at the rate of two to four ounces to a bushel, depending somewhat on the smuttiness of the seed. It is not advisable to try to treat badly smutted seed, better secure new seed or fan thoroughly first.

"On account of the difficulty in mixing this fine dust and the sickening effect it has on the human, if inhaled, the treatment cannot be made by shoveling, it must be done in some kind of a mixer, either home-made or commercial. Even with a mixer, it is a good idea to wear a dust mask or place a wet handkerchief over the nose and mouth, to prevent inhaling the dust. An old barrel churn with baffle plates fixed on the inside, a concrete mixer, a barrel or a box, made to revolve by means of a crank or a gas engine, will do the work. Two minutes turning of the mixer is required for thorough work. Copper carbonate does not injure the germination of the seed; in fact, experiments indicate that a slightly greater germination is secured from the treated seed than from untreated seed. This is a dry treatment that can be done weeks and even months before sowing time and will retain its quality. Two men can easily treat 25 to 30 bushels an hour. It should be remembered that treated seed is poisonous and should not be fed to livestock."

THE condition of the Argentine wheat crop is considerably above average. Although seasonal dry weather has prevailed for the past few weeks, the moisture supply is satisfactory as a result of unusually heavy rains several weeks ago.

CONTINENTAL Europe has wheat crops which are good, generally, but in the aggregate they will not equal the crops of 1923. European demand, says one Government report, will probably not be as strong as last year, and may be further reduced by the higher tariffs imposed by Italy and Germany.

FIELD SEEDS

WISCONSIN FEED IN TRANSVAAL

Wisconsin's popularity as the state which is one of the foremost in growing pure seed grain is spreading to all parts of the globe. Recently an order came to R. A. Moore, corn breeder at the Wisconsin College of Agriculture from J. E. Montgomerie near Cape Town, South Africa, for 400 pounds of Wisconsin No. 7.

The farmer had learned that Silver King had been introduced in Wisconsin by Mr. Moore and wanted some seed corn for planting in October. R. H. Lang of Jefferson County is filling the order. This type of seed corn has also been shipped to Rhodesia and Cairo, Egypt.

THE FARMERS' ALLY

While it is true that large seed companies are installing laboratories for testing the purity and germinating qualities of seeds sold by them, yet never will the state seed testing laboratories lose their places as the great agency for helping the farmer secure money making seeds. Farmers are realizing more and more the absolute necessity of securing good seeds in the first place if they are to survive, and recognize in the state seed testing laboratories, their closest ally.

The Colorado State Seed Laboratory at Ft. Collins,

some quarters, coming as it did at a time when arrivals from Europe showed material enlargement, the total for one week being about 7,300 bags. As a consequence the general market range was reduced about $\frac{1}{4}$, or to $6\frac{1}{2}$ @ $6\frac{3}{4}$ duty-paid, and in some cases it was believed that first-hand holders would have accepted $6\frac{1}{4}$. The easiness was also partly traceable to the fact that some French shippers had reduced their basis to $4\frac{3}{4}$ c.i.f., while others remained at 5 @ $5\frac{1}{4}$. Total arrivals were 9,170 bags, compared with 3,190 during July.

Timothy began to show signs of life early in the month as first indications were seen of a disposition to anticipate fall sowing requirements and as the month progressed this interest became broader and more active. At the outset holders of the small local stock were inclined to be firm in their views, partly owing to reports that the new crop was short. Hence it became more difficult to buy at last month's inside prices of $8\frac{3}{4}$, the general asking price being 9. As a rule, however, buyers were not impressed by the small crop claims and were generally unwilling to pay the higher figure. Before long they were justified in this attitude by the appreciable enlargement in the crop movement and in view of the evidence of willingness of growers to cash in their product at current levels, distributors here became more reasonable and the general market

seed of northern origin is best. The fact that seed is shipped from northern Europe is not a guarantee of its hardness. It has been suggested that the foreign seed be treated in the custom houses so as to give it a definite color in order to protect the farmers against its purchase in places where it is not likely to succeed.

WHICH IS BEST SEEDING RATE?

A lack of data on this subject, recently led Mr. Delwiche, of the Wisconsin Agricultural College, to conduct a series of trials to determine the best rates of seeding grain under different Wisconsin conditions. His work of the past two years indicates that the higher rate of seeding is ordinarily desirable for the growing of most grain crops. Oats seeded at a rate of three bushels per acre gave a better yield than any smaller amount. At Marshfield, four bushels per acre gave the highest yield. Under certain conditions heavy seeding is undesirable, as it is more apt to cause lodging.

For use as a nurse crop, a lighter rate of seeding is always desirable. Heavy stands of oats are almost certain to smother the young Clover or Alfalfa, either because of the dense growth or else by the lodging which results. Under these circumstances the differences which may be obtained in yield by seeding at a heavier rate are not sufficient to offset the losses which result from the destruction of all or a part of the young legume plants.

REDTOP ESTIMATE REDUCED

The latest bulletin of the Department of Agriculture, relating to the Redtop seed crop, places the probable production at about 225 carloads (30,000 pounds to the car).

The decrease this year is due to a reduction of about 30 per cent in the yield per acre and a slight reduction (5 per cent) in the acreage. Meadows made a very short growth because of the extremely dry weather last winter and this spring. Fifty-four growers, whose average yield of re-cleaned seed last year amounted to 68 pounds, indicated that yields would fall considerably below those of last year. Yields obtained from a few early threshings from windrows seem to point to somewhat larger yields for the crop than many growers and dealers have expected.

MAINTAINING QUALITY SEED IN MICHIGAN

Both the crop producer and those engaged in handling his product are interested in the production of high quality products which meet with the best market demand and prices, and which can be produced at a production cost which provide an adequate margin of profit.

Good seed of high yielding varieties is the foundation of profitable production and is essential in producing a high quality of hay and grain for the market. J. F. Cox, professor of farm crops at the Michigan Agricultural College, opened his address to the Michigan Grain and Hay Association meeting in Detroit, Mich., July 27. For instance, it is particularly important, he continued, that the Alfalfa grower secure seed of a hardy variety such as Grimm, Hardigan, or Northern Grown Common which will endure the rather rigorous winters of this state.

The Michigan State College of Agriculture has conducted tests of seed from practically all sources supplying the market and shown conclusively that Hardigan and Grimm are superior in giving enduring stands and high yields of hay under our conditions. These same tests show that seed from Argentina gives less than 50 per cent of a stand after the first winter and results in total failure after the second winter. During the fiscal year of 1923 and 1924, seven and one-half million pounds of Argentina Alfalfa seed was imported into the United States and sold largely in the corn belt and northern states. Several million pounds of Arizona seed moved northward annually into regions to which it is not adapted. Based on the experimental tests at the college, an educational campaign has been carried on throughout the state and the seed movement directed toward northwestern grown seed, Michigan grown seed, and Canadian grown seed.

Alfalfa campaigns and dairy campaigns have been held during the past four years in nearly all counties. Through these agencies and the work of county agents and field specialists, farmers in general have been made aware of the need of getting seed from dependable sources. The seed trade of the state, both co-operative and private, is conforming in a highly effective degree in securing their seed from dependable sources in the Northwest and in the North. As a result, Michigan has increased her Alfalfa acreage from 74,000 acres cut for hay in 1919, to 494,000 acres cut for hay in 1925, according to the estimates of V. H. Church, Crops Statistician, United States Department of Agriculture. Mr. Church states that about 40 per cent of the hay of Michigan this year is Alfalfa hay—the growing condition being 72 per cent for Alfalfa as compared with 35 per cent for Clover, Timothy and Mixed hay.

The Alfalfa crop put on its own campaign this



THE COLORADO PURITY SEED LABORATORY

Colo., is one of the institutions which make the experimental labs popular. It is under the able direction of Anna M. Lute. Tests are here made for residents of the state free of charge, including those for purity and germination, and examinations for and identification of weeds.

Colorado farmers are urged to make inquiries concerning their seed problems, and the information on file in the laboratory office makes an answer available for nearly all the problems presented.

SUMMER TRADE AS USUAL IN NEW YORK MARKET

By C. K. TRAFTON

Broadly speaking, conditions in the New York seed market during the month under review were about as usually expected at this time of the year. Doubtless the most encouraging feature was the indication of a broadening interest in the varieties needed for fall sowing, although it is true that trading was mainly in comparatively small quantities—evidently of the "filling-in" description. While various smaller dealers who had permitted their stocks to run down to extremely low levels deemed it wise to replenish to some extent at least in advance of the active season, it was evident that the majority held reasonably good carry-overs and hence were in a position to hold aloof, awaiting the decline in prices which they considered inevitable in view of the generally favorable crop prospects.

Crimson Clover was in less active demand early in the month, leading to claims in some quarters that the large order season had come to an unusually early end. However, his slackening of demand served to cause a somewhat easier tone in

basis was again reduced to $8\frac{3}{4}$. Only about 130 bags were exported during the month.

Red Top was also in more active demand, but business was checked by the extremely light supplies and the strong claims of holders. The latter were encouraged by claims of a deficient production and at this writing their general quotation for spot seed is 28 @ 30, compared with 21 @ 22 a month ago. There were no exports during the month.

Alfalfa was inactive throughout the month as buyers were not disposed to anticipate requirements because of the new crop movement and a general belief that the production will be made ample. At the outset holders of the small spot supply of domestic seed were firm at $22\frac{1}{2}$ @ 23, but later the tone became easier with the basis generally 21 @ 22. Little or no interest was shown in foreign seed, but as the spot supply was meager holders were not pressing and the basis remained unchanged at 19 @ 20 duty-paid. Business for forward shipment from Argentina remained impossible as shippers were not making firm offers and sent only a nominal quotation of 22 c.i.f.

WOULD FUMIGATE SEED IMPORTS

Wisconsin agricultural stations are urging the use of home seeds for various reasons, one of which is insurance against foreign weed contamination.

In addition to the fact that these imported seeds do not thrive under local conditions, there is also the danger of infesting local farms with foul weeds. Buckhorn, cornflower and other weed seeds have often been found in them. It is recommended that farmers demand evidence of the source of Clover seed at all times before they purchase it. American

year. Michigan leads all states east of the Mississippi River in Alfalfa acreage by at least 40 per cent.

It is estimated that at least an \$8,000,000 annual increase in net returns has been gained by Michigan farmers due to the extension in the Alfalfa acreage as compared to yields formerly secured from Timothy and Mixed hay, Alfalfa yielding about one ton more per acre, on the average, each year.

In the case of Red Clover, the tests at the Michigan State College, in co-operation with the Bureau of Plant Industry, includes seed from all native and imported sources. These tests have been continued for four years and show that Italian Red Clover seed is worthless and French Red Clover seed inferior for planting in Michigan—the French seed giving one-half to three-fourths of a stand for the first crop, as a rule, and a very weak second crop.

During the fiscal year 1923-1924, approximately 18,000,000 pounds of Clover seed was imported from France, some of which was undoubtedly Italian seed, and about 1,000,000 pounds straight from Italy. This seed was sold in the corn belt and northern states, seldom retailing to farmers under proper description. Domestic seed in the same test gave satisfactory first and second crops.

Great emphasis must be placed on the production and use of Michigan, Corn Belt, or northern state-grown Red Clover seed in order to keep a fair acreage of this valuable crop. The sources of seed must be known and its movement from the grower to the consumer must be protected so that a grower is assured as to the origin of his seed. It is, of course, necessary that both Clover and Alfalfa seed of high purity be planted in order to prevent the introduction of noxious weeds and reduce the percentage of weeds in our fields.

The plant breeding work of the Michigan State College of Agriculture occupies about 150 acres. It has contributed to date such varieties as the Robust bean, the Wolverine and Worthy oats, Red Rock and Berkeley Rock wheat, the Hardigan Alfalfa, two-row and smooth-awned barley, and a number of excellent corn varieties such as Improved Duncan, M. A. C. Dent, Improved Golden Glow, and lately a first resistant corn of great promise.

While Michigan has lost its great plant breeder, F. A. Spragg, who was killed last August, work nevertheless goes on with the inspiration of his great performance, and is conducted by a number of specialists who worked with him.

The Hardigan Alfalfa is particularly interesting to hay growers in that it gives highest forage yields and that sets seed more dependably and more profusely than other varieties under Michigan conditions. Already a large number of farmers are growing Hardigan Alfalfa seed under the Michigan Crop Improvement Association regulations.

The Berkeley Rock wheat is like the Red Rock in that it is unusually hard, and has a high gluten content as compared to other Michigan varieties. It shows a surprising resistance to stinking smut or bunt, and is almost entirely free from loose smut.

A new smooth-awned white barley is being increased for release. It is superior to the smooth-awned black barley in that its color is more desirable. The smooth-awned barleys do not cause irritation in times of harvesting, or to livestock when fed in the sheaf, or when the straw is used, hence, are in great demand.

With the tremendous increase in the production of Alfalfa hay in the state, the problem of handling it effectively so as to reduce the labor cost and produce a good quality of hay has become an important one. During the present season, 16 county demonstrations in making hay are being held. Emphasis is being placed on the need of curing Alfalfa in windrows in such a way as to retain the leaves. The left-hand, side-delivery rakes have the advantage of turning the tops and leaves inside of the windrow with a large percentage of the stems outside. The leaves continue to transpire moisture, thus drying out the stems. In these demonstrations, hay is made by raking the crop immediately after cutting or within several hours, allowing it to cure in the windrow until the next day, turning the windrow with the same rake and after several hours, hauling the cured hay into the barn, if weather conditions permit; if not, the windrows are turned as soon as the tops are dry and hauled in when sufficiently dry and cured.

Michigan has not yet produced enough Alfalfa to take care of the state's needs and the demand from eastern states for Michigan Alfalfa hay for feeding purposes is larger. Alfalfa ranks now and will rank in the future as one of our leading cash crops with a dependable market available to producers. The demand for hay has changed markedly from the old situation when Timothy took first rank to meet the demands of horse owners. The family horse is almost a thing of the past and with trucks being largely used where draft horses were formerly employed, the demand for Timothy has lessened on many markets. The great hay demand now is from the dairymen and livestock feeders who want Alfalfa, Clover, and Mixed hay carrying a high percentage of Clover and Alfalfa. The leguminous hays are much higher in protein and minerals.

Curing Alfalfa, Clover, and high grade Mixed hay is a more difficult proposition than curing Timothy. It will not pay to allow legume hay to be cured in the swath, following the methods of curing Timothy seed program by calling attention to good seed of corn and small grains produced in their locality and encouraging its local use. They can greatly forward this program by continuance of efforts along this line and by the handling and encouragement of the use of adapted Clover and Alfalfa seed of high purity. By the use of good seed and the general employment of better methods of curing, the position of Michigan as a hay state can be strengthened.

IMPORTS OF FORAGE PLANT SEED

The Seed Laboratory of the Bureau of Plant Industry reports the following imports of forage plant seeds permitted entry into the United States under the Seed Importation Act:

Kind of seed—	August		July 1,'25 to Aug. 31,'25	July 1,'24 to Aug. 31,'24
	1925 Pounds	1924 Pounds	Pounds	Pounds
Alfalfa	32,700	1,233,400	38,000	2,728,000
Canada bluegrass ..	1,700	4,900	33,100	4,900
Alsike clover	105,800	185,500	148,800	282,900
Crimson clover	*2,635,600	1,647,700	2,783,600	1,907,500
Red clover	74,400	28,900	28,900	75,000
White clover	147,400	80,000	273,500	102,900
Clover mixtures .....	.....	.....	500	.....
Broom-corn millet .....	.....	.....	.....	31,100
Orchard grass .....	.....	32,500	.....	32,500
Rape	254,700	100,300	254,700	188,700
English ryegrass ..	140,400	168,900	181,900	197,500
Italian ryegrass ..	32,300	21,400	151,000	55,500
Timothy .....	.....	.....	.....	100
Hairy vetch	†682,700	164,200	1,064,100	317,000
Spring vetch	44,100	65,200	117,700	109,200

The Seed Laboratory of the Bureau of Plant Industry reports the following imports of forage plant seeds not subject to the Seed Importation Act:

Kind of seed—	August		July 1,'25 to Aug. 31,'25	July 1,'24 to Aug. 31,'24
	1925 Pounds	1924 Pounds	Pounds	Pounds
Bentgrass	24,000	17,200	40,700	28,700
Biennial white-flowered sweet clover ..	37,500	.....	63,100	.....
Biennial yellow-flowered sweet clover ..	.....	.....	43,100	11,000
Crested dog's tail ..	2,200	8,900	2,200	8,900
Chewings fescue	114,100	182,400	312,400	302,200
Other fescues	161,900	70,000	196,600	104,300
Rescue grass .....	.....	.....	3,100	.....
Rhodes grass .....	.....	2,300	4,900	2,300
Rough-stalked meadow grass .....	.....	.....	500	2,200
Carpet grass	1,700	.....	4,200	.....
Tall paspalum .....	.....	.....	.....	4,500

*2,427,500 pounds from France, 208,100 pounds from Hungary.

†87,600 pounds from Germany, 109,600 pounds from Czechoslovakia, 109,000 pounds from Latvia, 86,500 pounds from Hungary.

BARLEY SEED DISTRIBUTED IN UTAH

For several years now, the agricultural experiment station at Idaho has been making tests on the new Trebi barley, and has found that it is suitable for both Idaho and Utah growing. As a result last year, a considerable quantity of this seed was planted in Utah, with great success. This year 10,000 pounds of certified Trebi barley seed will be distributed to Utah farmers by the county agents.

On one farm in Morgan County a field in which 13 pounds of seed were planted, yielded an average of 74 bushels to the acre, compared with 40 bushels for ordinary barley types.

MAILMEN AS SEED SALESMANAGERS

The seed business, perhaps, demands the confidence of the buying public more than other business. You can see and try out in advance the merits of an automobile, a clothes brush, or a peck of apples, but as good and bad seeds look very much alike to the layman, and as their actual quality cannot be told for a matter of months, the word of the seedseller must be taken with every purchase from the store. This fact was brought out recently by Ray Hastings, of the H. G. Hastings Company, of Atlanta, Ga., when he spoke before the convention of the Southern Seedsmen's Association at Memphis, Tenn. Mr. Hastings said that this necessity of public confidence should be borne in mind when selling seeds over the counter. A mail order seed business must be built slowly he said, and he went on to relate the none too glowing account of how the average seed mail-order business must be built:

Maybe a mail-order business can be built on the spur of the moment, but I was taught that it was necessarily slowly built. Usually no profit may be expected for the first five years. The foundation must be laid slowly and carefully.

A mail order house must have a mailing list. Where shall it get one? Many are advertised. Taxpayers' lists, farmer lists, etc. There may be a few exceptions in small, local lists that are good, but I wouldn't give a dollar for the lot. If some good seedsmen wants to offer me his list I might bite, but I don't think it would be worth very much to me. Certainly not if he's a good seedsmen and has the confidence of his customers.

Broadcasting inexpensive broadsides, small catalogs or other sales literature to rural mail box holders, using names that other customers might send you,

buying customer lists from other companies in allied lines of business, nurserymen for example, will show returns. Expensive they will be, but you can get names. You don't have to get them all in one year. Your best advertisement is a satisfied customer.

Mr. Hastings remarked further that using advertising in national circulation publications paid if the company was large enough.

THE OLDEST SEED CLEANER

No doubt the oldest device known to man for separating objects of varying sizes which are mixed together, and which he desires to be apart, is the sieve. It may be that cave men used it, certainly it has been known ever since civilization dawned, and remains among the useful implements in handling seed.

If a small grower has a crop of Alfalfa, which has been cut and hulled, and looks like pretty good seed, and calls in a seed buyer from an established seed concern, the buyer will take a sample in his hand, and look it over carefully; and then the grower is likely to hear some bad news.

"Ah!" the buyer will likely say. (Of course the buyer does not often visit the small grower directly, and the grower seldom hears this comment, but just suppose he did). "Ah! I see this has plantain, Russian thistle, foxtail, cockle burr, pigweed, lamb's quarter, sour dock, and a few more weeds in it."

This may or may not be news to the grower. A field of Alfalfa with apparently the cleanest stand you ever saw may still give a lot of weed seed in the harvest. If the grower is new to the seed game his face may show alarm. How can all these awful things ever be gotten out? Visions of picking

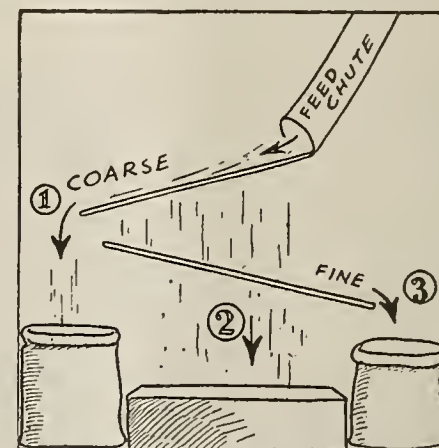


DIAGRAM OF THE OLDEST SEED CLEANER

over a few hundred bushels of Alfalfa seed, and separating one by one a few millions of weed seed from the good seed. But the seed buyer has not lost interest. He wants the seed. The price he offers is O. K., the grower's spirits rise. But his curiosity is stirred, or ought to be, ought it not? How can all those weed seed be cleaned out of the Alfalfa without prohibitive expense, in order to make it a salable article?

Well, when this seed goes to the seed factory, probably the first operation it is put through, after being scarified, is cleaning by sieves. The illustration herewith does not purport to show how the machine in general use is built, but merely illustrates the way it operates. There are two sieves, both tilted, and capable of being shaken by machinery, just as you would shake a sieve held in your hands.

Through the top sieve the Alfalfa seed will pass, and through the lower one it will not. It is a relatively simple operation, then, to eliminate impurities which are larger or smaller than Alfalfa, the first passing off the top sieve and the second passing through the lower one, while the Alfalfa itself, with weed seeds which are just its size, passes into a sack or chute placed to receive it.

After passing through the sieve the seed is usually put through a blast of air which blows out light seed and chaff. One passage through this operation is not sufficient to clean badly mixed seed, but after it has been through several times, it is certainly very different from the seed which came from the huller on the farm.

"Well," the grower might say, could he view this operation, "how about that seed I sold my neighbor without cleaning?"

SEED NEWS FROM MILWAUKEE

By C. O. SKINROOD

Prof. R. A. Moore is out with advice to farmers on how to proceed with harvesting their crops of Clover seed this fall. Prof. Moore advises that the proper time to cut Clover for seed is some time between September 1 and October 10.

The crop should be cut when the heads are brown, the flower stalks yellow and the seed a violet color. This is an excellent guide, he says, to fix the exact time for Clover seed harvesting.

Prof. Moore also states that farmers should raise their own Clover seed wherever possible this year. He maintains that this is the best way to get choice

[Continued on Page 193]



EASTERN

A new office building is to be built at Buffalo, N. Y., by the Marine Elevator Company.

The 25,000-bushel elevator of E. O. Sprenkle at Hellam, Pa., has been completed and put into operation by him.

The Ellison Coal & Grain Company has bought the grain and coal business of J. O. Ellison & Co., at Haverhill, Mass.

The Batavia Products Company has bought the general produce business of Louis C. Case at Batavia, N. Y. The company was incorporated to handle grain, hay and farm products. Roy J. Wigton is general manager and treasurer of the firm.

THE DAKOTAS

New equipment is to be installed by the Farmers Grain Company of Lawton, N. D.

The Farmers Elevator Company was recently organized at Big Stone City, S. D.

The Liberty Grain Company of Strasburg, N. D., is building a new elevator there.

Fred Moeller & Son have bought the Atwood Grain Elevator at Wentworth, S. D.

The elevator of the Amenia Seed & Grain Company of Amenia, N. D., is being repaired and remodeled.

F. Sturma is manager of the Scranton (N. D.) Equity Elevator, succeeding H. E. McKennet, who resigned.

The two elevators at Bancroft, S. D., owned by the estate of the late William J. Agnew, have been sold.

Capitalized at \$15,000, the Farmers Independent Elevator Company has been incorporated at Sanish, N. D.

The elevator at Fargo, N. D., of the Andrews Grain Company has been sold to the Powers Elevator Company.

A new grain dump and scales have been installed in the Hubbard & Palmer Elevator at Humboldt, S. D.

The Fleischmann Malting Company has completed a new modern elevator at Marion, S. D., and has opened for business.

Improvements and repairs are to be made to the elevator of the Stanley County Co-operative Association at Fort Pierre, S. D.

A new engine is to be installed and extensive repairs made to the elevator of the Sully Co-operative Association at Onida, S. D.

The Farmers Shipping Association has leased the Townsend Elevator at Presho, S. D. Dumps and a 10-ton scale are being installed.

The capital stock of the Farmers Co-operative Elevator Company of Spring Brook, N. D., has been increased from \$10,000 to \$20,000.

The Victoria Company is running the Equity Elevator at Carrington, N. D., with S. H. Cargill of Minneapolis the new manager.

The T. A. Johnson Elevator at Winfred, S. D., has been bought by L. F. Hartwich. He is having it repaired and equipped with an electric motor.

The elevator and coal sheds of the Woodworth Company of Southam, N. D., have been opened for business. Emil Steinke has been put in charge as manager.

The old Woodward Elevator at Fairmount, N. D., has been bought by Alton Theede, who owns and operates an elevator at Sonora. Theodore Lien will be manager.

J. G. Aline and Gus J. Winter recently filed incorporation papers at Wessington Springs, S. D., as the Winter Grain Company. The firm is capitalized at \$10,000.

The Lemert Grain Company is planning to rebuild its elevator near Carrington, N. D., which burned a short time ago. E. W. Wheeler is manager of the business.

Extensive repairs have been made to the elevator of the Farmers Elevator & Trading Company at Sentinel Butte, N. D. A new air dump was installed as well as distributors.

The new elevator of the Atlas Elevator Company at Castlewood, S. D., has been completed. It has a capacity of 35,000 bushels and is equipped with modern machinery, including a 10-ton Howe

Scale, Strong-Scott Air Lift Dump, seven ½-horsepower motors, two-horsepower motor air compressor, buckets, etc., and can handle 2,500 bushels of grain an hour.

The Sotham Elevator at Cogswell, N. D., has been leased by Max F. Bales who will conduct a general grain and coal business under the name of the Cogswell Independent Elevator.

The Kranzburg Grain & Fuel Company is moving a 20,000-bushel elevator from Appleby to Kranzburg, S. D., to replace its elevator, flour house and warehouse which burned in July.

General repairs have been made to the elevator of the Cando Mill & Elevator Company at Cando, N. D. The new machinery installed includes truck lifts. The office building has also been remodeled.

The elevator of the Andrews Grain Company at Fargo, N. D., has been sold by it to the Powers Elevator Company. The new owners will install new equipment. P. A. Dykstra is manager of the business here.

The Andrews Grain Elevator, of 20,000 bushels' capacity at Fife (p. o. Mapleton), N. D., has been bought by T. J. Cocking. It is equipped with new scale, truck dump and workroom with auto engine. He will operate this business as the Fife Grain Company.

SOUTHERN AND SOUTHWESTERN

Offices have been opened at Ponca City, Okla., by the Ponca Grain Company for handling grain.

A. W. Walker & Sons have bought the Cearley Grain Company at Canyon, Texas. They have taken charge.

The ice plant of the Norman Milling & Grain Company at Norman, Okla., is being enlarged at a cost of \$50,000.

William Barnett is manager of the Cogar Grain & Coal Company at Harrodsburg, Ky., succeeding the late E. R. Dillehay.

The Lenapah Grain & Hay Company has equipped its elevator at Delaware, Okla., with a new set of 10-ton capacity platform scales.

W. W. Rogers and Lon Chrisman now own the W. W. Rogers Grain Company at Leonard, Texas, and will operate as Rogers & Chrisman.

The Yukon Mill & Grain Company of Yukon, Okla., recently opened an elevator and warehouse at Banner, between Oklahoma City and El Reno, Okla.

T. F. Bush, A. E. Ruhmann and B. F. Knebel have incorporated at Waco, Texas, as the Ruhmann Grain & Fuel Company. The firm is capitalized at \$80,000.

Capitalized at \$15,000, the Santa Fe Grain Company has been incorporated at Fort Worth, Texas. The incorporators are Lee Potishman, T. F. West and Carl Maurer.

Capitalized at \$27,500, the Bethany Gin & Elevator Company has been incorporated at Bethany, Okla. J. M. Bailey, S. D. Rorem, and S. L. Shintoffer are interested.

A branch store and distributing depot is to be opened at Montgomery, Ala., on October 1, by the W. M. Crosby Flour & Grain Company. Gus L. Taylor is to be manager of the store.

The offices of the E. O. Billingslea Grain & Cotton Company have been moved from Oklahoma City, Okla., to Frederick, Okla. The grain business will be conducted on the same basis as before.

J. M. Smith, George D. Davies and J. S. Wood have bought the property of the J. T. Gibbons Grain Company at Altus, Okla., and will operate as the Smith Grain & Fuel Company. J. M. Smith will be manager.

The defunct Alamo Bonded Elevator at Alamo, Texas, has been bought by the Alamo Grain & Elevator Company and improvements costing \$3,000 have been made. The elevator has a capacity of 10,000 bushels.

The Mississippi County Cotton & Grain Company has been incorporated at Memphis, Tenn., capitalized at \$15,000. The incorporators are S. W. Overton and H. A. Mathews, who will be actively connected with the business.

The holdings of the Sewell Grain & Fuel Company of Vernon, Texas, have been bought by the

Vernon Grain & Fuel Company. The officers are: W. P. Thomas, manager; A. E. Johnson, secretary-treasurer; G. H. Wheeler, assistant manager.

J. H. Lang is now associated with the Cherokee Grain Company at Oklahoma City, Okla., which Willis G. Sautbine has reopened there. He was formerly in the grain business in the Grain Exchange Building.

The Sudan Grain & Elevator Company succeeds Mayfield & Hay at Sudan, Texas. The company plans to erect a 10,000-bushel elevator between Lubbock, Texas, and Clovis, N. M. The equipment will include cleaner, air truck dumps, etc.

IOWA

The Farmers Elevator Company at Erickson (Jordan p. o.), Iowa, is to be dissolved.

Harvey Kiefer has bought the elevator of Sherman & Clark at Stanley, Iowa.

The N. H. Adams Elevator at Decorah, Iowa, has been leased by Robert Wheatman and Roger Stoskopf.

The North Iowa Fuel, Feed & Grain Company at Plymouth, Iowa, is under the management of Warren Geer.

L. Beupers is succeeded as manager of the elevator of the Independent Grain Company at Chatsworth, Iowa, by Herman Herrin.

The Farmers Co-operative Association has its new elevator at Irvington, Iowa, ready for business. It is under the management of J. C. Maudsley.

The elevator of the Trans-Mississippi Grain Company, which has its head offices at Omaha, Neb., at Anthon, Iowa, has been closed down indefinitely.

The J. N. Johnson Elevator at Belmond, Iowa, has been bought by the Farmers Elevator Company, which also bought the Palsville Elevator. George Elder is manager.

A grist mill of 5,000 pounds per hour capacity is being installed at LeMars, Iowa, for the Farmers Elevator Company. A 60-horsepower electric motor is also being installed.

A grain brokerage and general investment business has been opened at Ames, Iowa, by L. E. Munsinger, who was for a time connected with the Ames Grain & Coal Company.

An attrition mill, corn sheller and crusher are being installed in the new building for the Ringsted Farmers Elevator Company at Ringsted, Iowa. The improvements will cost about \$10,000.

The name of the King Wilder Grain Company of Clarence, Iowa, has been changed to that of the Wilder Murrel Grain Company. Mr. King has not been connected with the business for some time.

The elevator at Meltonville, Iowa, formerly operated by Mr. Huber, has been bought by the Speltz Grain & Coal Company, which has its headquarters at Albert Lea. Fred Allen has been named manager.

MINNESOTA AND WISCONSIN

F. J. Feller is manager of the Sexauer Elevator located at Ivanhoe, Minn.

W. A. Wolf now owns the Farmers Elevator at Glencoe, Minn., and will operate it.

The Farmers Elevator at Evansville, Minn., has been bought by Nelson & Lundmark.

The elevator of the Henning Grain Company at Henning, Minn., has been opened for business.

The National Grain Elevator at Clarissa, Minn., is to be under the management of L. E. Johnson.

The Monarch Elevator Company has bought the elevator of the Equity Exchange at Ulen, Minn.

A grain buying business has been opened at Heckman (p. o. Marshall), Minn., by M. W. Johnson of Milroy.

The elevator at Mankato, Minn., formerly owned by the James Bros., has been sold by them to E. P. Carnes.

A modern office building is being erected at Owatonna, Minn., for the Farmers Co-operative Elevator Company.

Plans have been completed by the Commander Elevator Company of Minneapolis, Minn., for the purchase of the Exchange Elevator at St. Louis Park. The plant is a modern one, with capacity of 1,250,000 bushels, and is of concrete fireproof

construction. To finance the purchase, the Commander company increased its capital stock from \$150,000 to \$1,000,000. B. B. Sheffield is president.

H. G. Pederson succeeds Peter B. Lee as manager of the St. James Farmers Grain Company at St. James, Minn.

The Farmers Co-operative Elevator at Fergus Falls, Minn., is to be reopened for business. M. A. Mortenson is manager.

The Great Western Elevator property at Winthrop, Minn., has been bought by the Winthrop Farmers Elevator Company.

Business operations have been resumed in the elevator of the Watson Farmers Elevator Company, which is located at Watson, Minn.

Improvements have been made to the Farmers Elevator at Glenwood, Minn. P. D. Gilbertson is president of the company operating this house.

Grain weighing, dumping and elevating devices of the latest type are being installed by the Independent Grain & Lumber Company of Faribault, Minn.

The elevator, coal yard, lumber and cement yard and cheese box factory at Cato, Wis., formerly operated by Thomas Hayden, have been bought by Kurt Huebner.

The business of the Farmers Co-operative Elevator Company, Atwater, Minn., formerly conducted by John Gagnon, is to be operated under the management of Olaf F. Satterlund of Elbow Lake.

A concrete elevator of five bins, with capacity of 40,000 bushels, is to be built at Janesville, Wis., for the Blodgett Milling Company. The contract for the work was let to the Polk-Genung-Polk Company of Ft. Branch, Ind.

Improvements have been made to the elevator at North Redwood, Minn., for the Pacific Grain Company of Minneapolis. It has also overhauled its houses at Marietta, Boyd and Clarkfield, Minn., and Albee, Troy, Waubay and Aberdeen, S. D.

To buy and sell grain, etc., the City Mills Company, Inc., was organized at La Crosse, Wis., capitalized at \$25,000. The firm will also buy and sell flour, meal, etc. The incorporators are William Sassman, J. A. Kletecka, John L. Haas and F. C. Pfafflin.

The King Midas Milling Company of Minneapolis, Minn., has bought the elevator at Medford, Minn., owned and operated by R. E. Jones & Co., of Wabasha. It was operated under the management of J. D. Adams. Hereafter T. E. Lahart will manage the house.

Farmers around Ada, Minn., have bought the former equity elevator there and will operate as a farmers' co-operative elevator, as the Norman County Farmers Elevator Company. W. G. Hadler is president; G. A. K. Anderson, vice-president; and A. A. Habendank, secretary, of the firm.

ILLINOIS

The old DeLong Elevator at Osman, Ill., is being overhauled by John Schmall and Bob Bradley.

The Beason Grain Elevator at Beason, Ill., is under the management of Archie Thompson.

Emery R. Chase has leased the E. G. Coon grain business at St. Joseph, Ill. He has for the past year been manager of the business.

The elevator of the Sauers Milling Company at Evansville, Ill., has been painted with an oil and waterproof paint by the Stevens Engineering & Construction Company.

A new elevator is to be built at Macomb, Ill., for the Farmers Grain, Fuel & Supply Company. It will be erected on the site which the company bought recently. The old elevator was built 40 years ago.

The 65,000-bushel elevator at Buckingham, Ill., of J. A. Urbain has been bought by the recently incorporated La Salle Cash Grain Company. Mr. Urbain remains as manager. Mark Smith is president of the firm.

The Palmer Flour Company has been incorporated at Chicago, Ill., to conduct a wholesale and retail flour, grain, feed and coal business. Capital stock of the firm is \$50,000. The incorporators are Earl M. Palmer, Harriet Palmer and Edgar D. Weiss.

The elevator of the Twist Bros., at Taylorville, Ill., has been transferred to Wiley Jones, who has been managing the elevator of the Farmers Grain Company at Wileys, and Harry Spicer. The two will handle gasoline in addition to conducting the regular elevator business.

The Havana Co-operative Grain Company has completed its new 20,000-bushel elevator at Havana, Ill. It is equipped with modern machinery and will be managed by Richard Steging. The equipment includes a Western Cleaner and Corn Sheller, distributor, Richardson Automatic Hopper Scale, Howe 10-ton truck scale, truck dump, two 10-horsepower electric motors and belts, cups, etc., of Webster Manufacturing Company's make.

Pratt & Blair's Elevator at Chicago, Ill., owned by the Wabash Railroad and operated under lease

by Nye-Jenks & Co., is being equipped to receive grain by water. Its marine tower is being built by James Stewart & Co., and is of structural steel, covered with corrugated iron siding. The 25,000-bushel marine leg will be of crosshead type. Rubber belting will carry two rows of 12x8x8 inch buckets staggered. The power will be furnished by two motors, of 100 horsepower; one of 30 and one of 20 horsepower. The leg casing and machinery was supplied by the Webster Manufacturing Company of Chicago.

MISSOURI, KANSAS AND NEBRASKA

E. F. Steinberg has bought the C. L. Gilbert Elevator at York, Neb.

Baggarley & Reiderer have taken over the Farmers Elevator at Norton, Mo.

Harrington & Cummings are planning to build a new grain elevator at Blaine, Kan.

H. A. Bender succeeds W. E. Johnson as manager of the Farmers Elevator at St. Paul, Kan.

Fred Hall, Carl Butell and Fred Wyman have bought the Norwood Elevator at Baldwin City, Kan.

Electric power is being installed in the elevator of Walter Peterson and Sam Yustesler at Chadron, Neb.

Roosa & McCormick have let the contract for the erection of a 10,000-bushel elevator at Valentine, Neb.

J. B. Runyon is now manager of the elevator at Scottsbluff, Neb., owned by W. H. and Robert Ferguson.

The Rialto Elevator Company at St. Louis, Mo., recently changed its name to the Wabash Elevator Company.

The Peters Grain Company has bought the elevator of the Farmers Grain & Stock Company at Greenwood, Neb.

Robert Harvey has bought the elevator of Joe Scott at Gering, Neb. Mr. Harvey plans to enlarge the elevator and stock yards.

C. A. Kalbfleisch has bought the elevator of the Baker Crowell Grain Company at Rice, Kan., and will probably remodel it in the spring.

H. H. Gausman of Morrowville is manager of the Farmers Elevator at Linn, Kan. He succeeds Fred Slipsager who bought an elevator at Rossville.

Dick Carlson is manager of the elevator at Sidney, Neb., owned by the Nebraska-Colorado Grain Company. This company owns a string of elevators.

Joseph O. Thomson and Charles D. Skidmore have incorporated at Guilford, Mo., as the Farmers Elevator Company. The firm is capitalized at \$10,000.

The Scruby Bros. Grain & Implement Company of Chillicothe, Mo., is to erect a new elevator in the near future on the site of the one which burned a few weeks ago.

The Collingwood Grain Company is progressing rapidly on its new elevator at Pretty Prairie, Kan. The work is being done by the Jones-Hettelsater Company of Kansas City.

The Bahr Elevator at Broken Bow, Neb., has been bought by Nye-Schneider-Jenks Company. The business of the Omaha company in Broken Bow is conducted under the management of L. E. Highland.

The elevator of the Duff Grain Company at Turlington, Neb., has been sold to the Dunbar Grain Company of Dunbar, Neb. The Dunbar company now owns three elevators, two of which are located in neighboring towns.

The Southwestern Milling Company, Inc., Kansas City, Mo., is building 24 reinforced concrete grain tanks of 750,000 bushels' capacity. The addition gives the company, through its subsidiary, the Wyandotte Elevator Company, a grain capacity of 2,500,000 bushels.

Lucy S. and Luke W. Seward and Ralph B. Hughes have organized the Seward Grain Company to operate the elevator at Richmond, Mo., which J. M. Reed of Dover bought from the R. V. Seward Grain Company at trustee's sale. The firm is capitalized at \$15,000.

The interest of G. R. Crook in the Deitrich & Crook Grain Elevator and implement house at Saffordville, Kan., has been bought by W. C. Obley, who will take possession early in September. Mr. Deitrich retains an interest in the firm which will be known as Deitrich & Obley.

To deal in grain, feed, and cereals the Cereals Corporation has been incorporated at Kansas City, Mo. Hugh M. Miller, William D. Bush, Edwin, H. Pugsley and H. H. Leedy are interested. The company bought the property of the defunct Atlas Cereal Company at receiver's sale.

The holdings of the Mississippi County Elevator Company, including mill and elevator at Anniston, Mo., and Belmont, five cotton gins and scales and warehouses, have been sold by R. L. Ward, trustee of the company. The bulk of the property went to Alphonse De Lisle, who bid \$36,000. The remainder

was bought by the Cheatham Cotton Company for \$13,000. The latter included scales at Rodney, and Brewers Lake, two warehouses at Charleston, warehouse at East Prairie, warehouse at Bird's Mill, elevators at Anniston and Belmont.

The plant of the Nelson Grain & Milling Company of Kansas City, Mo., is being dismantled. The building was sold several months ago to a chemical company, at which time the Nelson company planned to equip another building. However, it decided to liquidate the business.

The plant of the Bushton Mill & Elevator Company at Bushton, Kan., has been leased by the Lindsborg Milling & Elevator Company of Lindsborg, Kan. The company will operate it, with R. A. Stehwein, one of the former owners, operating for it, buying grain and handling flour and feed.

OHIO AND MICHIGAN

The Willard Farmers Exchange of Willard, Ohio, has increased its capacity by 4,000 bushels.

C. A. Crowell of Chesaning has bought the plant of the Stockbridge Elevator Company at Potterville, Mich.

A new corn sheller and wheat cleaner have been installed by the Pioneer Elevator Company of Pioneer, Ohio.

The Sheets Elevator at Toledo, Ohio, is being electrified and will be ready for operation about September 1.

The Wayland Feed & Coal Company has bought the elevator property of the Wayland Farm Bureau at Wayland, Mich.

The Jewell Grain Company of Jewell, Ohio, has made arrangements for rebuilding the elevator there which burned late in July.

N. B. Snaveley, M. G. Byrnes, H. S. Taylor, N. A. Busse and T. H. Garry have incorporated at Fairport Harbor, Ohio, as the Jenkins Elevator Company.

Roy E. Pierce, Fred Zuenkeler, A. Mannion and William E. Hess have incorporated at Cincinnati, Ohio, as the Ohio & Indiana Grain & Hay Company. The firm is capitalized at \$5,000.

A new company known as the Alma Grain & Elevator Company has been organized and purchased the Alma Elevator Company at Alma, Mich. J. P. Olk of Flint will be manager.

The grain elevator at Latty, Ohio, has been sold by the Palmer Miller Company to J. M. Burnett of Decatur. In the deal Mr. Burnett traded a farm located near Rockford, Ohio, for the Latty property.

Capitalized at \$15,000, the Atwater Co-operative Elevator Company has been incorporated at Atwater (Bad Axe p. o.), Mich., and is taking the old Atwater Grain Company. Martin McKenzie is president.

A. L. Crispell has bought an interest in the Carson City Elevator Company at Carson City, Mich. Mr. Crispell was with the Rockafellow Grain Company at Carson City for 18 years and had charge of elevators at Carson City, Ashley, Middleton and Vickeryville for seven years. He succeeds N. Davern in the Carson City Elevator Company.

WESTERN

The elevator at Hathaway, Mont., has been bought from M. A. Sheesley by Arthur J. Palmer.

The Thomas Bros.' elevator at Idaho Falls, Idaho, is to be managed by A. M. Furey, formerly of Plainville, Kan.

The Farmers Grain Shipping Company of Antelope, Mont., is to install a truck dump and new engine this fall.

T. B. Van Horn of Miles City is manager of the elevator of the Yellowstone Elevator Company at Sumatra, Mont.

Glen R. Strickland has been appointed manager of the grain department of the Nicholls Grain & Milling Company of Los Angeles, Calif.

An elevator is being built at St. John (Malad City p. o.), Idaho, for the Inland Empire Milling Company. It will have a capacity of between 10,000 and 15,000 bushels.

The Eaton Bros. Company has its new elevator at Wendell, Idaho, completed, and will use it for cleaning grain and seeds. O. M. B. McCoy will have charge.

The Farmers Elevator at Ballantine, Mont., has been bought by the Occident Elevator Company, which owns a string of elevators in that section of the country.

The property of the Portland Flour Mills Company, Metolius, Ore., including elevator, warehouse, office building and lands, has been bought by H. M. Seethoff.

A 40x60-foot overflow warehouse is being built for the Cottonwood Elevator Company of Grangeville, Idaho, which is operated by the Prairie Flour Mills of Lewiston.

Balfour, Guthrie & Co., of Portland, Ore., are building two large grain elevators at a cost of

\$250,000. One of the elevators will have a capacity of 10,000 tons and will be completed by the middle of October. The 6,000-ton elevator will be finished the middle of September.

The warehouse of the Puget Sound Grain Company at Wilbur, Wash., has been bought by Frank Stookey. He will conduct it in connection with his private warehouse.

Plans have been completed by T. F. Wren for the erection of a 60,000-bushel concrete warehouse at Fenn, Idaho. The warehouse will not be built until next spring.

The Fred Mosher Grain Company has built a 16,000-bushel elevator at Arriba, Colo. It is equipped with motors, scale, air lift dump, and Great Western machinery.

The elevator of the Montana Grain Growers at Portage, Mont., has been sold through the receiver of the company to the Greeley Elevator Company of Great Falls, Mont.

E. F. Peterson is now at the head of the Salt Lake City, Utah, grain inspection office. He was formerly chemist of the Globe Grain & Milling Company at Ogden, Utah.

Operations have been started on the 30,000-bushel elevator of the Elgin Grain & Storage Company at Elgin, Ore. The foundation is of concrete and the cribbing of heavy wood.

The Peerless Farmers Grain Company has been organized at Scobey, Mont., capitalized at \$50,000. Arnold Horgen, H. Jacobson, Carl J. Lien and P. T. Karlsrud are interested.

An office and cleaning plant are to be established at Twin Falls, Idaho, for the Trinidad Bean & Elevator Company. The company will engage in purchase, storage and cleaning of beans.

W. L. Beedy resigned recently as grain buyer for the Sperry Flour Company of Portland, Ore., and is now with W. H. Allen in the firm of W. H. Allen Company, grain and bean brokers.

The Idaho Bean & Elevator Company of Billings, Mont., has leased a warehouse at Hardin, Mont., and will install complete cleaning and packing equipment, to be ready to handle this year's crop.

The Farmers Elevator Company of Ferdinand, Idaho, has been reorganized as the Ferdinand Grain Company, capitalized at \$25,000. F. M. Bieker, P. A. Buchler, Frank J. Hayden and Ben Lehmeier are interested.

The Bonnen Bros. will probably have their bean elevator at F. Morgan, Colo., ready for use by the middle of September. The building is of tile construction and has a capacity of from 8,000 to 9,000 100-pound sacks of beans.

The Campbell County Farmers Grain Association of Gillette, Wyo., is planning to build an elevator and for this purpose is increasing its capital stock to \$10,000. The elevator will be of concrete and steel with capacity of 25,000 bushels.

A large warehouse and an additional elevator are to be built at Delta, Colo., and a second elevator at Montrose, Colo., for the Colorado Milling & Elevator Company. Both elevators will be of reinforced concrete and steel construction.

The Mikkelson Warehouse Company has been incorporated at Lewiston, Idaho, to conduct a general grain business and manufacture flour and chops, and buy and sell grain and operate warehouses and elevators. The company has elevators at Reubens, Culdesac, Sweetwater, Genesee, Uniontown and two at Leon. M. B. Mikkelson is president of the company; S. E. Mikkelson, vice-president; and L. W. Wright, secretary-treasurer.

INDIANA

A new addition is being built to the elevator of the Ziliak Schafer Company at Cynthiana, Ind.

S. E. Chestnut has leased the grain elevator at Westphalia, Ind., owned by the Pioneer Grain Company.

A No. 23 Western Sheller has been installed by the Atlanta Grain Company of Atlanta, Ind. Motors have been installed for power.

Robert Bell has let the contract to the Reliance Construction Company for the erection of a grain elevator at Brookston, Ind., replacing the one destroyed by fire.

The Farmers Elevator at Laketon, Ind., has gone into the hands of a receiver, George C. Baker being named as such by the court. The property has been appraised at \$31,575.

A new cleaner has been installed in the elevator of the Busenbark Grain Company at Crawfordsville, Ind. It will be used for cleaning wheat and Timothy, Clover and soy beans.

O. Meredith and Lloyd Summe have bought the elevator at Burket, Ind., formerly the property of the defunct Farmers Co-operative Association. Mr. Summe will have charge of the elevator under the new ownership.

Gus Kilver succeeds Ray Ryan as manager of the Farmers Elevator at Pisgah (mail to Jacksonville), Ind. He was formerly manager of the Farmers

Elevator, which is now filled by J. H. Fuller. Mr. Fuller's place as manager of the elevator at Mur-rayville is filled by E. W. Bochwitz of Harvel.

Baxter McBane and P. E. Goodrich have incorporated at Winchester, Ind., as the Kendall Goodrich Company. It will operate a grain elevator business and is capitalized at \$20,000.

Fred Daily is now associated with the Goodrich Bros. Hay & Grain Company as manager of its elevator at Jolietville, Ind. Mr. Daily was for three years with the Boone Grain & Supply Company's elevator at Lebanon, Ind.

Capitalized at \$20,000, the Jasper Roller Mills, Inc., was incorporated at Jasper, Ind., to mill flour and buy and sell grain, seeds, fertilizer, flour, etc. The directors are: Andrew W. Eckert, John H. Berber, Frank J. Seibert, Christian Keller and Louis J. Eckstein.

Articles of incorporation have been filed by James B. Harlan, Richard Carton, James A. Harlan, Bert Dickson and Edward Brown as the Harlan

Grain Company of Kentland, Ind. The firm is capitalized at \$75,000, and will deal in grain, hay, seeds and fertilizer.

CANADA

Two grain elevators at Swift Current, Sask., have been bought from F. E. West by the Saskatchewan Wheat Pool. The price paid was \$14,000.

Announcement has been made that the Spillers Elevator at Vancouver, B. C., will be operated as a public elevator this year. It has a capacity of 2,000,000 bushels, and there was some rumor that the elevator would be kept private this year which now proves to have been erroneous.

The business of the Burrard Elevator Company, Ltd., Vancouver, B. C., is to be conducted by J. A. Kennedy, formerly of the United Grain Growers, Ltd. Offices have been opened in the Merchants Exchange Building, and an elevator of 800,000 bushels' capacity leased from the Vancouver Harbor Board.

FIRES-CASUALTIES

Gilby, N. D.—The Duluth Elevator here was damaged by lightning.

Alden, Minn.—Fire destroyed the elevator of the Speltz Grain & Coal Company.

Kearney, Neb.—Fire completely destroyed the Sala Nelson Granary with a loss of \$4,000.

La Crosse, Wis.—A Grams & Sons, feed mill and warehouse were damaged by fire on August 25.

St. Joseph, Mo.—The feed store of Charles Haberkorn was destroyed by fire with a loss of \$2,000.

Hamlin, Kan.—Lightning was the cause of a small loss in the elevator of Kanel & Miller on August 16.

Sevierville, Tenn.—The Sevierville Grain & Feed Company's property was damaged by fire on August 24.

Nicholasville, Ky.—Fire damaged the Jessamine Coal & Feed Company's property with a loss of \$25,000.

Loranger Colony, near Hammond, La.—Fire on August 13 destroyed the feed store of Wright & Anderson.

Stalwart, Sask.—The Co-operative Elevator Company's elevator here burned recently with a loss of \$12,000.

Bowman, N. D.—On August 3, the George C. Bagley Elevator, managed by N. B. Davis, was destroyed by fire.

Cortland, Neb.—The Nye-Schneider-Jenks Elevator was struck by lightning and destroyed with a loss of \$4,000.

Galena, Kan.—Fire destroyed the H. L. Jaqueth Feed Mill with a loss of \$8,000. The insurance carried was \$5,000.

Kendrick, Idaho.—The Vollmer-Clearwater Elevator here and two houses burned on August 6 with a loss of \$75,000.

Sheyenne (Eddy p. o.), N. D.—The old Monarch Elevator owned by the Sheyenne Elevator Company was destroyed by fire.

West Jefferson, near Columbus, Ohio.—The elevator here was destroyed by fire on September 1 with a loss of \$55,000.

Jackson Center, Ohio.—The elevator of the Buckland Milling Company was slightly damaged by lightning on August 12.

Collinsville, Okla.—The elevator owned by the Middle State Milling Company was destroyed by fire with a loss of \$7,500.

Chester, Neb.—A hot box in the elevator of the Citizens Lumber & Supply Company was the cause of a small loss on July 31.

Pickrell, Neb.—The Seymour-Dix Elevator was destroyed by fire with about 3,000 bushels of grain. The loss amounted to \$4,000.

Payette, Idaho.—Fire destroyed the feed mill of the Payette Milling & Elevator Company. Half of the loss is covered by insurance.

Cunningham, Kan.—Fire, which originated in the coal bin of the Bowersock Mills & Power Company on August 20, did slight damage.

Canton, Mo.—The warehouse of the Canton Co-operative Elevator Company was destroyed completely by fire with a loss of \$20,000.

Alma, Neb.—Lightning struck the Equity Elevator and completely destroyed it. About 2,300 bushels wheat and 300 bushels corn were destroyed with the building.

Chicago, Ill.—On August 25 fire destroyed the two grain elevators of the Union Grain Elevator Company, owned by the Bank of Montreal, and leased

for a time by the Grain Marketing Company. The loss was \$200,000. The buildings were empty at the time.

La Salle, Ill.—On August 3 the warehouse of H. F. Caskey was severely damaged by fire, due, supposedly, to boys smoking near the plant.

Monitor, Wash.—The feed store of R. A. Brown and K. L. Patrick was destroyed by fire which went through an entire business block in that town.

Rushville, Mo.—On August 17 the elevator of the A. J. Elevator Company was slightly damaged by fire which originated in the engine room of the elevator.

Canton, Mo.—Fire of unknown origin destroyed the Farmers Elevator and Warehouse on August 7. Both elevator and warehouse were filled with grain at the time.

Fergus Falls, Minn.—The feed mill here owned by O. J. Fossen was burned recently. The insurance carried on the property amounted to approximately \$13,000.

Liberty, Texas.—Fire starting in the second story of the Jo-Mill Feed Store swept through the business section of the town destroying several buildings.

Atlanta, Ga.—The warehouse of A. C. Woolley & Co., was damaged by fire with a loss of \$20,000. The loss was heavy in hay, grain and sacked feed stuffs.

Polson, Mont.—The Farmers Elevator here, containing several hundred bushels of new wheat burned on August 27. The fire was of unknown origin.

Atlanta, Ga.—The building of the Cottongin Seed & Feed Company was badly damaged by fire on August 31, and its contents destroyed at a loss of \$30,000.

Los Angeles, Calif.—The hay barn of the Nicholls Grain & Milling Company was damaged by fire with a loss of \$80,000. The company's operations were not affected by the fire.

Springfield, S. D.—The Farmers Co-operative Elevator near here was burned on August 22. The elevator was valued at \$15,000; and building and contents had insurance of \$9,700.

Strahan, Iowa.—Lightning caused a fire which destroyed the Farmers Elevator. The building was owned by farmers but was leased by L. M. Hambsch. The loss on the building was \$5,000; insurance carried was \$3,000.

Andover, Iowa.—The elevator of the Farmers Grain & Seed Company was destroyed by fire caused by spontaneous combustion. The loss is partly covered by \$6,000 insurance. The house will be rebuilt at once.

Lawrenceville, Ill.—Fire destroyed the warehouse and contents of the Horner Elevator & Mill Company. The insurance will cover the loss of hay and feed stored in the building. The warehouse was also insured.

Jewell, Iowa.—On August 27 fire destroyed the Charles Glaman Elevator with a loss of \$10,000. The insurance carried on the property amounted to \$3,500. Spontaneous combustion is believed to have caused the fire.

Beatrice, Neb.—Fire, started by lightning, destroyed the Nye-Schneider-Jenks Elevator. The elevator had been out of commission for some time and will not be rebuilt. The loss amounted to \$5,000, covered by insurance.

Minneapolis, Minn.—Fire destroyed the Calumet

Elevator of the Itasca Elevator Company with a loss of \$250,000. Only the concrete tanks holding 92,000 bushels wheat were saved. The capacity of the entire house was 600,000 bushels.

Kasota, Minn.—Fire destroyed the elevator of the Englund Grain Company with 15,000 bushels grain, consisting of oats, barley and rye. The insurance amounted to \$9,500 on the building.

Sprague, Wash.—A warehouse of the Seattle

Grain Company was destroyed by fire on August 17 when an automobile was hit by a train and thrown against the building. The gas tank exploded setting fire to the building.

Bessemer, Ala.—Fire of unknown origin destroyed on August 29 the warehouse of the Bessemer Feed Mills, with a loss of \$10,000 partly covered by insurance. Judge J. C. B. Gwin and L. B. Bradley are the owners of the mills.

cific in Kansas and Oklahoma, via Superior, were unreasonable. The Superior Traffic Association and the Public Utilities Commission of Kansas intervened in support of the complaint. The Board of Trade of Kansas City, Mo., and the St. Joseph Grain Exchange of St. Joseph, Mo., whose members are in competition with the dealers in grain located at Superior and other points in Nebraska, intervened in opposition to the complaint. After reviewing the rate situation involved, the examiner declared the rates assailed were not unreasonable.

NEW RATE INCREASES SUSPENDED

The new increased rates on grain shipments from Iowa, Minnesota, North and South Dakota and Illinois points, to have been effective the middle part of last month, are suspended and the final decision as to their validity depends on further investigation by the Interstate Commerce Commission. The hearing has been ordered but no date specified yet. The suspension will continue until November 29 unless an adjustment has been made before then or extension granted for further inquiries. The action followed protests made to the commission by grain associations of the northwest against the new schedule which had been filed by the carriers.

The roads which filed increases were the Chicago, Milwaukee & St. Paul; the Rock Island; the Great Northern; the Minneapolis and St. Louis; and the Chicago, St. Paul, Minneapolis & Omaha. The increases suspended by this order were on the transportation of grain, grain products, flax and millet from points in the states named to all points. The commission said it appeared the rates are injurious to the rights and interests of the public.

ASKS SPEEDY RETURN OF CARS

Grain loading up to the present time has progressed satisfactorily, reports L. M. Betts, of the Railway Association. There has been little strain on the box car supply of the country owing to the small Winter wheat crop and the more moderate marketing. But it seems certain, he points out, that moving the Spring wheat from the Northwest will mean a more serious problem, which eastern roads, as well as southern and western lines, will have to help solve by rapidly returning to the grain district, cars from Northwestern lines. The Spring wheat crop, states Mr. Betts, will be smaller than last year, but the reduction is comparatively much less than in the case of Winter wheat. With wheat this year on practically a domestic basis little export demand has developed or is expected. Instead of a short local movement in the Northwest to lake ports for shipment by water as occurred last year, it is expected that Spring wheat, because of milling demand, will be shipped all-rail to all parts of the country, especially to eastern and southern destinations. This will not only greatly lengthen the average haul, requiring more cars, but obviously will scatter the cars of northwestern carriers to other roads, East, South and West.

These conditions applying to wheat, plus a heavy movement of oats, with a large crop of corn, to handle a little later, and general traffic on a heavy scale give decided point to the necessity for continuing an effective distribution of box cars to meet the country's demands.

TRANSPORTATION

DUVALL CASE DISMISSED

The case of H. J. Duvall, receiver of the Kansas and Oklahoma Railway Company vs. the Rock Island Lines has been dismissed by the Interstate Commerce Commission on its findings that the joint rates on grain and grain products from Milner, Kan., to interstate destinations on the Rock Island not unreasonable. It has also found the establishment of joint rates on the sort of traffic mentioned, from State Line, Kan., to the same destinations, had not been shown to be necessary or desirable in the public interest.

The receiver asked for the establishment of reasonable joint rates from State Line and alleged the existing joint rates on the commodities mentioned, from Milner, Kan., were unreasonable. The Rock Island joined the short line in making joint rates, but the short line was dissatisfied with the arrangement and brought complaint.

MOORE-LAWLESS CASE SETTLED

The Interstate Commerce Commission has settled the case of the Moore-Lawless Grain Company vs. the C. B. & Q. Railroad, finding that the test rate charged on one carload of wheat from Nebraska City, Neb., to Kansas City and reconsigned to Westwego, La., was "inapplicable." The carriers charged a rate of 57.5 cents, the authority for which, the report said, did not appear. The carriers admitted an overcharge and said they were willing to refund. The report said the carriers at the time of the shipment maintained a joint commodity rate of 36.5 cents from stations beyond the point of origin to the Louisiana destination over the same route, in disregard of the fourth section. The railroads contended the applicable combination was not unreasonable, but on the contrary unduly low. They said the fourth section violation was a technical one resulting from their failure to increase the lower rates from the more distant points at the time of the general increase in August, 1920.

ANTI-RUM CAMPAIGN BY RAILROADS

One of the favorite ruses of north-border bootleggers has been to use cars, presumably fully loaded with grain, for the transportation of their bottled wares. Wheat makes ideal packing, it is said, for the valuable cases, and the respectability which a covering of wheat lends to a shipment of Scotch, is something that only a rum smuggler can fully appreciate. But there is a hard winter ahead for the liquor vendor:

The Canadian National and Canadian Pacific Railways have entered into an arrangement with United States customs officers in the hope of reducing or preventing the smuggling of liquor from Canada into the states. Close watch will be kept on rebilled cars originating in Canada and destined from points across the line. Railroad officials will notify the collector of customs at the nearest point in the United States when any car is held at a Canadian station and rebilled to another destination. It is declared that large quantities of liquor have been smuggled in this manner.

UNREASONABLE WHEAT RATES

In the case of the Fuller Grain Company, Kansas City, Mo., vs. Beaumont, Sour Lake & Western Railroad and others, the Interstate Commerce Commission has recently found that the rate applicable on wheat shipped from Minneapolis, Minn., to Kansas City, Mo., thence to Galveston, Texas, for export, in the period between June 14 and December 8, 1921, was unreasonable. It authorized the waiving of undercharges and dismissed the complaint.

The wheat in question moved over the Milwaukee from Minneapolis to Kansas City, and charges covering that transportation were collected on the basis of the local rate of 27.5 cents, according to the report. Tariffs of the Kansas City Southern permitted reshipment from Kansas City at the balance of the through rate applicable from points of origin where the shipments originated. Charges from Kansas City to Galveston were prepaid on the basis of 6.5 cents, that being the difference between a proportional rate of 34 cents applicable from Minneapolis to Galveston and the local rate of 27.5 cents collected from Minneapolis to Kansas City.

The report said, however, that the proportional rate of 34 cents did not apply, when the shipments originated, on grain reaching Kansas City over the Milwaukee, although defendants evidently were of a contrary view, the report said. A proportional rate of 28 cents was applicable from Kansas City to Galveston. On June 9, 1924, suit was instituted for collection of the outstanding undercharges.

The Commission concluded that the applicable rate was unreasonable to the extent it exceeded 34 cents and that collection of the undercharges might be waived.

BULK CORN RATES

On a finding that rates on one carload of bulk corn shipped from Alvo, Neb., to Wichita, Kan., stored and reshipped to Custer City, Okla., were not "unreasonable or unduly prejudicial," the Interstate Commerce Commission dismissed the complaint of the Wichita Terminal Elevator Company vs. the Chicago, Rock Island & Pacific and other roads. The complainant alleged that the combination rate of 44.5 cents charged on the shipment, which moved in December, 1922, was unjust because it exceeded a joint rate of 34 cents between the same points.

The report set forth that Alvo was on the Rock Island and that Custer was on the Kansas City, Mexico & Orient and on the St. Louis-San Francisco. The shipment moved over the Rock Island to Wichita and over the Orient beyond. Charges were collected at the combination rate of 44.5 cents consisting of the local rate of 24 cents from Alvo to Wichita and the local rate of 20.5 cents beyond.

O.K.'s CORN RATES

Examiner F. M. Weaver has recommended to the Interstate Commerce Commission that the case of the Nebraska State Railway Commission vs. the Santa Fe and other railroads, be dismissed. He found that the much discussed rates on corn from points in Nebraska to points in Kansas and Oklahoma via Superior, Neb., were not unreasonable. The complainant alleged that the combination rates on corn, in carloads, from points in Nebraska within a radius of approximately 100 miles of Superior to destinations on the Santa Fe and Missouri Pa-

OBITUARY

BOSEL.—August D. E. Bosel died, aged 84 years, at his home in Henderson, Minn., where he had been in the grain business for many years. His widow and eight children survive him.

BROWN.—W. P. Brown, a member of W. P. Brown & Co., one of the grain and feed firms of Memphis, Tenn., died suddenly recently from heart trouble.

BURWELL.—Robert L. Burwell died on August 10 after a lingering illness. He was a grain commission merchant of Baltimore, Md., and for years was identified with the Chamber of Commerce of that city.

CAPRON.—William B. Capron committed suicide, aged 50 years. He was for years export manager of the Spencer Kellogg & Sons of Buffalo, N. Y. He retired two years ago.

CARVER.—Charles W. Carver died on August 29. He was for 30 years a broker at Memphis, Tenn., specializing in flour and millfeed. He was a member of Carver & Griffith and represented the Larabee Flour Mills Corporation of Kansas City in Memphis.

CHRISTIANSON.—J. P. Christianson, formerly manager of an elevator at Lawrence, Neb., died on July 17, aged 44 years.

DAY.—On September 5, after a brief illness, Winfield Scott Day died at the Oak Park (Ill.) Hospital. He was an active member of the Chicago Board of

Trade, and for years was on the Board of Directors



THE LATE WINFIELD SCOTT DAY

of that organization. He was a member of the grain firm of Simmons & Day, which went out of business a few years ago.

FAHIS.—Victor Fahis died suddenly, aged 55 years at Ottawa, Kan. He was at the head of Fahis & Sons, hay commission men, and an official of the Kansas City Hay Dealers Association.

HARRISON.—Thomas Harrison died on August 17, aged 83 years. He was a retired grain merchant of Hagersville, Ont., and for the greater part of 60 years had been in the grain business there.

HEPTIG.—William L. Heptig, a member of the Chicago Board of Trade, was killed in an airplane accident at the Government air mail field at Maywood, Ill.

HESSAN.—Charles J. Hessan died recently at Newburg, Iowa. He was manager of the Farmers Elevator Company.

HEWES.—Edwin Hewes died on August 10 at Baltimore, Md., aged 85 years. He was the oldest member of the Baltimore Chamber of Commerce. Since 1913 he had been in charge of the foreign department of the grain receiving and exporting firm of C. P. Blackburn & Co., and prior to that date had been identified with two other large export houses.

LEGG.—John C. Legg died from heart disease on August 16. He was head of John C. Legg & Co., flour and grain commission merchants of Baltimore, Md. He came to Baltimore in 1878 and organized the company bearing his name.

MARTIN.—F. M. Martin, president of the F. M. Martin Grain & Milling Company of Cheney, Wash., died recently. He was engaged in the grain and hay business for years, before organizing the grain and milling firm which bore his name.

ORTHWEIN.—William D. Orthwein died, aged 84 years. He was one of the oldest members of the grain trade and the St. Louis Merchants Exchange and was president of the William D. Orthwein Grain Company of St. Louis, Mo.

PIERRE.—Alphonse Pierre died on August 23 at his home in Oconto, Wis. He was a veteran in the grain and millfeed business in Wisconsin, and in the grain and milling business in Door County for more than 30 years.

RICARD.—H. D. Ricard died, aged 28 years, on July 31. He was a member of Ricard & Cote, dealers in grain and flour at New Bedford, Mass.

RUSSELL.—William Russell died on August 18. He was a flour and feed dealer of Campbellford, Ont. Heart trouble caused his sudden death.

SKINNER.—Thomas Skinner died on August 21. He was one of the older members of the Chicago Board of Trade.

SPENCER.—James H. Spencer died on August 23. He was president of the Spencer Construction Company, prominent builders of mills and elevators of Baltimore, Md. His widow and two daughters survive him.

STONE.—J. B. Stone died on September 1 from paralysis. He had for 20 years been prominent in the grain business at Mattoon, Ill. His widow and one daughter survive him.

WEITZMAN.—Jacob Weitzman died aged 62 years. He was a well known flour and feed merchant of Niagara Falls, N. Y. He is survived by his widow, son and daughter.

WHELAN.—James Whelan died after an illness of two years. He was a prominent local independent grain dealer and farmer of St. Thomas, N. D.

WILSON.—Austin A. Wilson died on August 3, aged 39 years. He was at the head of the Wilson Grain Company, Springvale, Maine.

FIELD SEEDS

(Continued from Page 188)

seed. On the other hand, he believes that those who cannot raise their own seed should go to some farm neighbor and inspect his field especially for noxious weeds. In that way he thinks any farmer can arrange to buy seed that he has seen growing and which should be reliable.

Reports from various sections of the state indicate that while much of Wisconsin was dry for about three weeks late in August and early in September, there have been rains since that time which will be of great help to the Clover seed crop.

Alsike grew rank in the western counties of the state after the heavy rains. The second growth of Alfalfa was reported as very good and this will go far to offset the hay shortage in some counties.

In the western half of the state pastures have been reported in a condition of 95 per cent of normal, while in the eastern part of the state it has been much drier and pastures only reached a 75 per cent stage. Many farmers on the eastern side of the state had to turn their cows into the meadows to supply the feed which was lacking when pastures dried up.

The principal development in the seed market at

Milwaukee for the last 30 days, according to the official report of the Chamber of Commerce, is the decline in Timothy seed. The Red Clover market has held in the old rut with only slight price changes. In general the seed market is pretty well maintained, according to the preliminary trade for the new season. Seed dealers point out that the season is not far enough along as yet to establish the probable scale of seed values for the winter season.

The North American Seed Company says the outlook is for a good crop of Red Clover seed. A little threshing of the new seed is reported and these samples were of fine color and of nice quality. However, the company says the rains for nearly a week will delay the Clover threshing business probably for some time.

In general the company expects the supply of Red Clover seed to be larger than a year ago and the prediction is made that price levels are likely to rule a little under those of last year.

The Timothy market has had a decisive weak spell, according to the North American officials who state that the seed came on the market so fast that a slump of about \$1 per 100 pounds was forced. The company says the yield of Timothy seed proved to be quite a little larger than expected.

The Alsike yields were reported by the North American to be large and the seed is pretty good quality except that some of it is mixed with White Clover which militates against its sale readily. The Alsike market is holding strong and the company does not see any lower prices in sight on this commodity.

The trade in White Clover is reported by the North American as rather quiet. Not much demand has shown as yet. The White Clover crop is reported to be of good volume and the quality is reported as a good average.

It is too early yet, the company says to get much of a line on Alfalfa, but prospects are good.

The North American says it is too early to get a good line on the market prices of seeds as yet because the movement in some cases is just starting.

HUGE SEED SALES

About a year ago the Co-operative Seed Services of seven states decided to combine their efforts to insure an adequate supply of high grade seeds of known origin and disseminate information regarding pure and adapted seed, and so formed the Federated Seed Service at Chicago, with "Safe-seed" the corporation to be used as the sales agency.

At the first annual meeting of the organization, sales, more than justifying the existence of "Safe-seed," in the various states, were reported as follows: Indiana, \$130,000; Maryland, \$3,000; Michigan, \$200,000; New York, \$40,000; Ohio, \$75,000; Pennsylvania, \$3,000; Virginia, \$60,000; Wisconsin, \$3,500.

The expense of operating the Federation the first year was less than \$4,000.

In addition to selling seed, the organization has engaged in the work of spreading information regarding adapted seed, including warnings against certain undesirable imported seeds, also against the use of southern grown Alfalfa seed in the corn belt.

FOREIGN CLOVER SEED POOR

Since the World War, an unusual amount of various foreign Clover seeds was put into American markets, but owing to the general low quality of the shipments, their position in the market is weak. Clover seed grown in certain foreign countries, especially the seaboard countries of southern Europe, has been found unsatisfactory under Wisconsin conditions. The wide spread Clover failures reported in late years are very largely due to the use of other than home grown seed.

Various trials have been conducted, showing clearly that Clovers imported from countries of a mild climate are unable to withstand the rigors of the Wisconsin winters. They may survive unusually mild winters when favored with a good covering of snow, but under severe conditions their winter-killing has repeatedly been complete. Home grown seed has under all conditions been the most satisfactory; not only does it withstand the winters very much better than seed imported from Europe, but it also produces better yields of hay. The difference between Clovers from different sources is so marked that the foreign seed cannot be recommended under our conditions.

COLLEGE SEED DIVIDENDS

People who contend that too much of the taxpayer's dollar goes to state college agricultural work will find Bulletin No. 227, of the Iowa State Agricultural College, to be interesting, even if not just in accord with their views.

Improved varieties of oats developed and distributed by the Iowa Agricultural Experiment Station are returning to the state annually more than the total annual appropriation made by the state for the support of the Iowa State College and Experiment Station combined; more than 15 times the amount appropriated by the state to all of the

work of the Agricultural Experiment Station; more than 200 times the funds expended on all the crop improvement work.

Beginning in 1913, the Iowa station distributed seed of Iowa 103. This white grained, early variety, selected from Kherson, in 292 tests made by Iowa farmers on their own farms, outyielded the home varieties 3.73 bushels per acre.

Beginning in 1914, the Iowa station distributed seed of Iowa 105, an early maturing, short strawed variety recommended for rich black soils. In 205 tests made by Iowa farmers on their own farms, this variety outyielded the home varieties 2.53 bushels per acre.

In 1919, the Iowa station began distributing Iowa war seed. This is a white grained, early variety, making a somewhat greater growth of straw and yield of grain at the station than Kherson from which it was selected. In 330 tests made by Iowa farmers, Iowa war outyielded the home varieties 5.93 bushels per acre.

Through many other tests and seed developments, the material of the bulletin shows that Iowans are continually receiving dividends practically, from the tax money supporting crop improvement and agricultural work generally. The bulletin deals particularly with oats.

FIGHT COLORADO SEED FRAUD

Alleged superfine lawn grass seed has recently been peddled by fraudulent salesmen in Colorado. Common meadow grass seed worth about 15 cents a pound, at the most, has been sold to credulous housewives within the state for as high as \$1.50 a pound. The Colorado state seed laboratory, however, working in conjunction with the established seed concerns of that state, made commendable progress in its campaign against fraudulent grass seed peddlers.

VETERAN SEEDSMAN DIES

Charles F. Wood, 56 years of age, for many years well known to the seed trade, as a jobber, broker and retailer, suddenly died on July 31, at his home in Louisville, Ky., following a stroke of apoplexy.

Mr. Wood came to Louisville about 1900 from Richmond, Va., and with W. P. Stubbs formed the present house of Wood, Stubbs & Co. Mr. Wood withdrew from the company in 1912, entering the paint business for a while, later going to Chicago, where he was in the seed brokerage business. During the war period he was connected with the seed reporting service of the Department of Agriculture. Afterwards he was with the Albert Dickinson Company, Chicago. Last year he was in New York, in the seed brokerage business, and just a short time ago returned to Louisville, where he maintained his home.

LOW MISSOURI BLUEGRASS SEED YIELD

Missouri bluegrass seed production for 1925, from a 75 per cent condition, is estimated at 400,000 pounds of rough cured seed on 7,143 acres, against 450,000 pounds in 1924, according to E. A. Logan of the U. S. Bureau of Agricultural Economics and Jewell Mayes of the Missouri State Board of Agriculture. Average yearly production for Missouri or the western district (Missouri, Iowa, Nebraska and Kansas) is 325,000 pounds.

More pastures were stripped and more strippers were operating this year than formerly, but acre yields are reduced because of close pasturing and dry weather preceding harvest. Average yield is 56 pounds per acre, ranging from 35 to 80 pounds. Average yearly yield is around 110 to 120 pounds.

MAINE'S SEED LAW

The State of Maine was one of the first states to give aid to honest seed merchants through legislation designed to check the efforts of those who would foist every kind of ill mixture conceivable on the grower, in the name of seed.

The first law regulating the sale of agricultural seeds was enacted by the state legislature of 1897. This has been revised by the legislature of 1905, 1911 and 1919. The most important changes made by the legislature of 1919, are the declaration of noxious seeds and the vitality or germination guaranty required under Section 3. As provided for under the inspection law, the Commissioner of Agriculture has proclaimed a list of seeds that will for the present be considered as noxious. This list is given as well as the most important sections of the Maine Seed Law in a bulletin, "Official Inspections," No. 114, published by the experiment station at Orono, Me.

The Commissioner of Agriculture in Maine is the executive of the law regulating the sale of agricultural seeds, insecticides and fungicides in Maine. It is the duty of the Director of the Maine Agricultural Experiment Station to make analyses of the samples collected by the Commissioner, and to publish the results of the analyses together with the names of the persons from whom the samples were obtained, and such additional information as may seem advisable. All correspondence relative to the

inspection laws should be addressed to the Division of Inspections, Department of Agriculture, Augusta, Me.

ALFALFA IN NEBRASKA

Nebraska now ranks first in the production of Alfalfa, says F. D. Keim of that state, with 1,125,000 acres planted to the legume. The acreage of Alfalfa in the United States has doubled about every 10 years since 1899 and is now about 10,000,000, about one-seventh of which is reseeded each year, calling for about 25,000,000 pounds of seeds.

ALFALFA SEED VALUE RECORDED

In the report of the Kansas State Board of Agriculture, the Alfalfa seed crop of the state is listed in a table setting forth the value of the 1924 field crops. It is at the foot of the table in which wheat leads, to be sure, but it is at least of ranking importance, the Alfalfa seed value being placed at \$365,411. Directly above it is listed the value of the sugar beet crop of millet, flax, broom-corn, and rye. With all values considered, from the top wheat figure of \$163,808,506 down to the value of the fourteenth crop, Alfalfa seed, the total value of the Kansas field crops runs up close to \$379,000,000.

HEAVY SEEDING TESTED

It is better to sow five or six pecks of wheat to the acre than two or three, according to Department of Agriculture experiments in Colorado and all over the Great Plains area. The reason for the increase in yield, is better winter survival, a thicker stand, earlier maturity and a larger grain growth in proportion to straw.

Mr. Martin of the Department of Agriculture has been in charge of wheat experimental work for a long time and has studied wheat culture in every section of the country. He made the following statement: "I have never seen a successful crop on thin seeding when heavy seeding was a thin stand or poor yield." His data and observations are taken from the Government experiment stations on the Great Plains over a period of about 15 years, and should be reliable figures for wheat growing districts. It may prove that light seeding is one of the biggest factors for low yields.

FLAX FUTURE PROMISING

Among other crops which were rather brusquely shoved aside during the war to make room for wheat, was the flax crop. Recuperation of the seed's acreage has taken place at the rate of 800,000 to 900,000 bushels acres each year since 1922, but the acreage may be still somewhat increased before production with average yields will equal the present consumptive need. According to Government reports, the linseed oil requirements for 1925 will be approximately the equivalent of 40,000,000 bushels of flax seed.

During the period of large production from 1900 to 1908 exports averaged about 12 per cent of the production but during the next five years production increased materially and exports were less than one per cent of production while imports increased until in 1913 they equaled nearly one-half of the domestic crop.

During the war period flax acreage was reduced in favor of wheat until production was brought down to around 12,000,000 bushels. Exports were almost negligible while imports exceeded yearly production by about 2,000,000 bushels.

The acreage in 1921 was still smaller than during the war period totaling but little over a million acres and production was the smallest since 1879 with the exception of 1919 when the crop was very poor and averaged only 4.8 per acre. Because of the general business depression, however, prices declined to about \$1.45 per bushel as the average farm price and imports were also decreased until the total supply of flax seed in the

United States for that year was only 21,650,000 bushels.

In 1922, production and net imports totalled 38,243,000 bushels, and in the following year about 37,438,000 bushels. This information together with the fact that the post-war building and repairing which have lent strength to the oil market since 1919, may in 1925 be counted upon as even a stronger factor, make it probable that flax prices in this country will be on a relatively higher level than wheat during this crop year.

The one nigger element in this woodpile of rather favorable indications, is the possibility of world production being heavily increased in 1925. This would likely reduce flax prices from what they now are. Yet the possibility seems remote, considering that yearly world production seems to have reached the peak of its recent climb and is now about 130,000,000 bushels, compared to a five year pre-war average of 111,000,000 bushels.

NEW SEED TRADEMARK

The following new seed trademark was recently published in the *Patent Gazette* issued by the Uni-

THOROBRED

ted States Patent Office: "Thorobred" seeds, etc. George Tait & Sons, Inc., Norfolk, Va. Filed March 14, 1925. Serial No. 211,066.

Otis Scott is now with the Solomon Seed Company of Solomon, Kan.

A modern seed house is to be erected at Beaver City, Neb., by S. J. Franklin.

A new warehouse has been completed at Jeanette, Pa., for the Hess Bros.

The Turlock Seed Company of Turlock, Calif., has been succeeded by Harold O. Hoover.

The new warehouse of the Keeney Seed Company at Rigby, Idaho, has been completed.

Additional storage space is being planned by the Northland Seed Company of Sidney, Mont.

J. A. Cedarquist is succeeded as manager of the Occidental Seed Company at Myton, Utah, by Floyd Wheeler.

The capital stock of the Rupert Seed & Milling Company of Rupert, Idaho, has been decreased from \$50,000 to \$25,000.

The business of the East Coast Seed Company of Fort Lauderdale, Fla., has been bought by the R. G. Snow Seed Company.

The capital stock of the J. Charles McCullough Seed Company of Cincinnati, Ohio, has been increased from \$500,000 to \$800,000.

A new building has been put up at Havana, Ill., for the Kelly Seed Company, in which the company will store and sell its smaller grain seed.

A grain elevator is to be built at Denton, Mont., for the Barkemeyer Seed Company of Great Falls. The elevator will have a capacity of 25,000 bushels.

A seed warehouse, one story, frame and iron, costing \$9,000, is to be built at Twin Falls, Idaho, for the Darrows Bros. Seed & Supply Company.

The Odenville Grain & Seed Company has been formed at Odenville, Ala., capitalized at \$2,000. The incorporators are G. B., M. W. and Ethel Forman.

The Chicago, Ill., office of the Barkemeyer Grain & Seed Company has been discontinued and hereafter all business will be conducted from Great Falls, Mont. E. E. Barkemeyer continues in charge of the seed business.

The business at McAlester, Okla., formerly conducted by the Kincannon Bros. has been bought by the Briggs Seed Company, Inc. Active management will be in the hands of Glen Briggs, who has been associate agronomist at the Oklahoma Agri-

cultural College for five years. A complete line of farm and garden seeds, as well as fertilizers will be handled.

Two new seed cleaning machines are being installed and the plant is being overhauled for the Utah Basin Seed Growers Association of Myton, Utah.

A new concrete and brick fireproof warehouse is being built by the Clarke & Keller Seed Store of Shawnee, Okla., to take care of its increasing business.

A new cleaning plant is to be built at Lebanon, Ind., for the Hooton-Davis Company, who will also complete equipment of cleaning and handling machinery.

The interest of Edward T. Bromfield in the John Lewis Child Seed Company, Inc., of Floral Park, N. Y., has been sold by him. He was president of the company.

A new warehouse and cleaning plant have been completed at Hemet, Calif., by J. C. Loomis. It will have a storage capacity of 1,000,000 pounds and cleaning capacity of a carload a day.

William L. Wheeler is president of the Eastern Seed Company which has been incorporated at Ft. Fairfield, Maine, to conduct a seed and real estate business. The firm is capitalized at \$100,000.

A new warehouse is being built, to be finished by September 20, for the Western Seed & Irrigation Company of Fremont, Neb., at Rocky Ford, Colo. New machinery and equipment will be installed.

A new firm has been organized, under the name of Patton & Browning, at Idaho Falls, Idaho, to operate a seed cleaning plant in the Idaho Falls bonded warehouse. Equipment will be installed for cleaning of Alfalfa and Clover seed.

To conduct a seed, fertilizer, grain, livestock and fuel business, the Heilman & Heilman Company has been incorporated at Elkhart, Ind. Its capital stock was \$10,000. John O. Heilman, Abram L. Heilman and William R. Thomson are interested.

To conduct a general field seed, grain and feed business, at Nashville, Tenn., the Ellis-Fite Seed Company has been incorporated at Nashville, Tenn. The firm is capitalized at \$20,000. Ellis Fite, Ellis Glenn Fite, Nettie Fite, C. E. Williams and C. T. Williams are interested.

The Cereal Mills Company of Wausau, Wis., is establishing a wholesale and seed department and will also engage in the manufacture of a complete line of poultry feeds and stock rations. H. H. McVeigh, who recently joined the company, will have charge of these two departments.

Changes are being made by the Henry Field Seed Company of Shenandoah, Iowa, which will make it possible to handle much more business with less friction and trouble. The company now occupies six buildings in Shenandoah and will be able to handle 10,000 orders per day.

MAKING GOOD CONCRETE

Making good concrete involves rather close observance of certain requisites in the way of rules for handling. It is very important that no more water be used than necessary, as too much will reduce the strength of concrete. Too little water will also reduce its strength and make it porous. For general use, concrete after thorough mixing, should be wet enough to form a mass of pasty or jelly-like consistency, but never so wet as to flow easily or be soupy.

Concrete should be placed in forms within 30 minutes after it is mixed. It should be tamped or spaded as it goes into forms. This operation makes the concrete dense and improves the surface. Newly placed concrete should not be permitted to dry out. It should be protected from the sun and drying winds for a week or 10 days, otherwise the water necessary for the proper hardening will evaporate, resulting in a loss of strength. Floors, walks and similar surfaces can be protected by covering with moist earth, hay or straw, as soon as the concrete has hardened sufficiently so that the surface will not be injured. This covering should remain on for a week or 10 days and be kept moist by occasional sprinkling.

Proper materials are another essential. Both sand and pebbles should be clean and free from dirt or organic matter. By sand is meant that material ranging in size from fine up to that which would just pass through a screen with 1/4-inch openings. Coarse sand makes better concrete than fine sand. Bank run gravel (just as it comes from the pit) should not be used without separation. Water used in mixing should be clean.

North American Seed Co.

Wholesale Grass and Field Seeds

Milwaukee, Wis.

"THE HOUSE OF QUALITY"

Exporters

Importers

Nungesser-Dickinson Seed Co.

NEW YORK, N. Y.

Wholesale Seed Merchants

Buyers and Sellers

Timothy, Red, White, Alsike and Alfalfa, Clovers, Redtop and Millet Seeds

SEEDS

BETTER SEEDS; BETTER CROPS

PRUNTY SEED & GRAIN CO.

9 South Main St.

SAINT LOUIS



BUYERS—SELLERS, FIELD SEEDS

ED. F. MANGELSDORF & BRO.

Wholesale Field Seeds

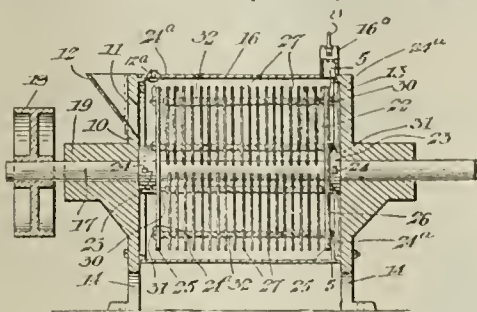
First and Victor Sts., St. Louis, Mo.

GRAIN TRADE PATENTS

Bearing Date of March 26, 1925

Machine for hulling wheat.—Benjamin Plowman Kent, Outlook, Sask., Canada. Filed June 27, 1924. No. 1, 539,358. See cut.

Claim: A machine for hulling wheat, comprising a suitably supported outer casing, a rotatable shaft journaled through said casing, a driving pulley on said shaft, a hulling drum within the casing and fixedly mounted on said shaft, a plurality of hulling blades



on said drum, rubbing plates on the end of said drum and rubbing plates registering therewith on the inner end of the casing, intake and discharge means for the casing, means for adjusting the hulling blades and water intake means in the casing.

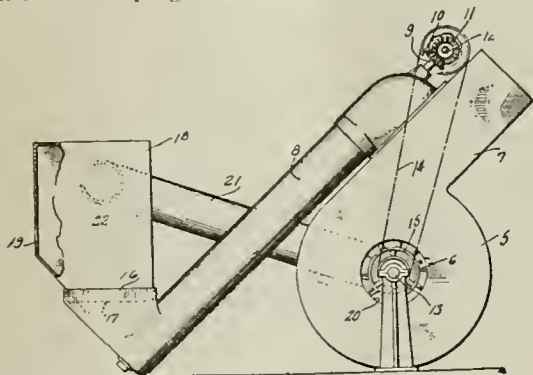
Bearing Date of June 9, 1925

Conveyor.—James T. Cowley, Syracuse, N. Y., assignor to the Lamson Company, Syracuse, N. Y., a corporation of Massachusetts. Filed May 4, 1923. No. 1,541,410.

Centrifugal drier.—Terrence O. Westhafer, Pueblo, Colo., and Fred Merle Miller, Chicago, Ill. Filed April 7, 1920. No. 1,541,163.

Pneumatic conveyor.—George Bernert and Jacob Bernert, Milwaukee, Wis. Filed June 3, 1921. No. 1,541,469. See cut.

Claim: A pneumatic conveyor, comprising, in combination, a fan casing, a conveying duct extended from the fan casing, a blower fan in the casing for procuring a pressure of conveying current of air in the duct, air inlet means for the fan casing, an elongated conveyor casing having a discharge and a receiving point, means connecting the conveyor casing discharge point with the conveying duct ahead of the fan, mechanical conveying mechanism within the conveyor



casing and adapted to convey material entering the conveyor casing at its receiving point through the casing to the conveying duct to be therethrough conveyed by the conveying current of air, and means connecting the inlet means of the fan casing with the interior of the conveyor casing, whereby any back pressure in the conveyor casing incidental to its connection with the conveying duct is relieved and carried off through the blower fan.

Grain door.—Louis F. Jackson, Chebanse, Ill. Filed November 20, 1924. No. 1,541,573.

Grain door.—John S. Cameron, Elliott, Ill. Filed January 6, 1925. No. 1,541,620.

Grain door.—James Little Neilson, Winnipeg, Man., Canada. Filed September 25, 1923. No. 1,541,272.

Bearing Date of June 16, 1925

Grain car door.—Joseph E. Drake, Blue Rapids, Kan. Filed September 14, 1922. No. 1,542,224.



Seed separator.—Frederic S. Lyman, Salt Lake City, Utah, assignor of one-half to Maurice Keating, Salt Lake City, Utah. Filed June 15, 1923. No. 1,542,155.

Bearing Date of June 23, 1925

Dust collector.—Francis E. Finch, New York, N. Y., assignor to Ruggles-Coles Engineering Company, Pa., a corporation of New Jersey. Filed May 9, 1921. No. 1,542,866.

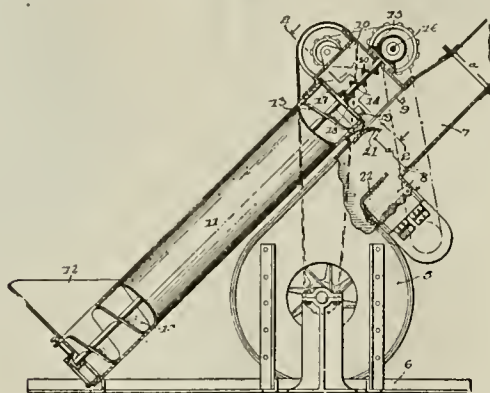
Centrifugal drier.—Edward Woolrich, Sault Ste. Marie, Ont., and Gottlieb Rudolph Holliger, Montreal, Que., Canada. Filed January 7, 1924. No. 1,542,929.

Dockage tester and process for operating the same.—John A. Perkins, Minneapolis, Minn. Filed May 28, 1924. No. 1,543,028.

Bearing Date of July 7, 1925

Pneumatic grain conveyor.—George Bernert, Milwaukee, Wis. Filed August 19, 1920. No. 1,545,230. See cut.

Claim: A pneumatic conveyor apparatus including an air duct, an upwardly extended feeder conveyor casing communicating at its upper end portion with said duct, a valve seat in the upper end portion of the feeder conveyor casing, a valve slidably mounted



in the upper end portion of said casing and movable to engage by gravity against said seat, and means for conveying material upwardly in said casing to open said valve and feed said material therepast into the duct.

Automatic grain weigher.—George M. Baird, Wichita, Kan. Filed June 26, 1923. No. 1,544,545. See cut.

Claim: In an automatic grain weigher, of the kind described, a stationary elevator head, a scale beam, and pawls attached to the stationary elevator head, a two compartment hopper suspended from said scale beam, said hopper comprising an oscillating deflector valve, doors hingedly attached at the bottom of said hopper, rocker members and connecting rods, the said rods connecting the rocker members and doors, said rods attached in such a way that when one door is closed as by connecting rod 16 feet, the point of connection of said rod to said rocker member will be near vertically positioned over the axis of the rocker member shaft 11, and by said position and angle of

(Continued on Page 197)

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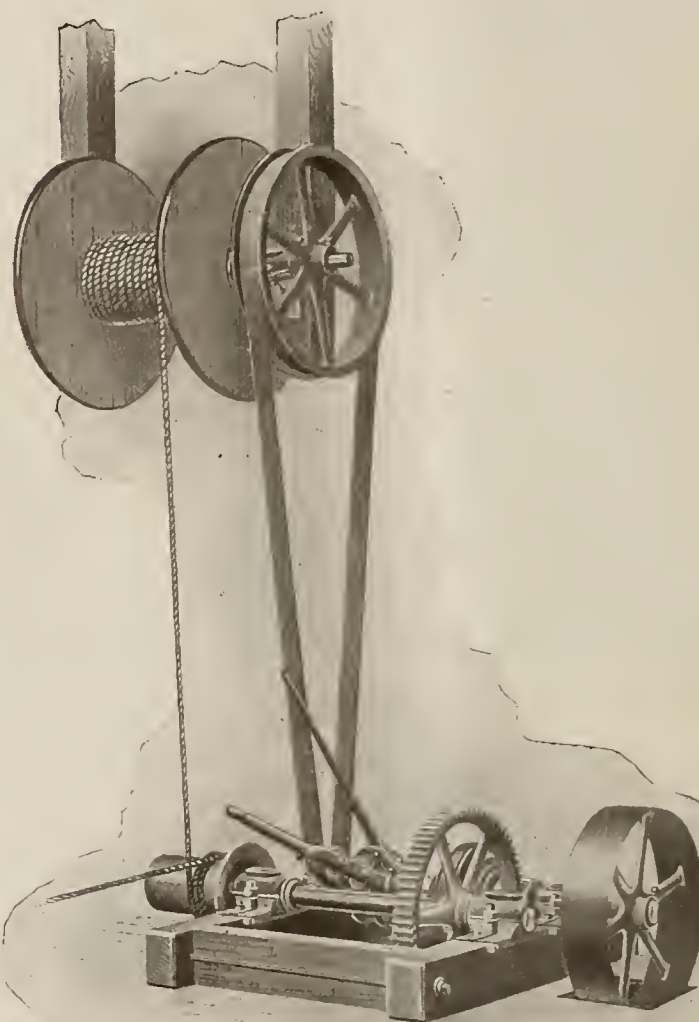
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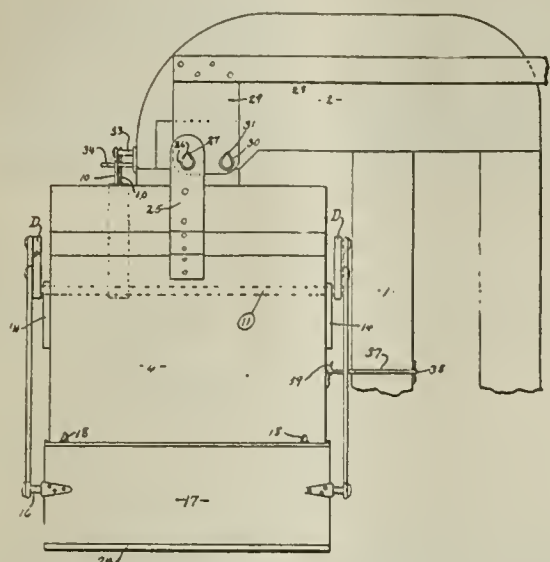
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said rod will prevent locking on the center, said rocker members so formed that the downward movement of said door will be turned much slower on the begin-

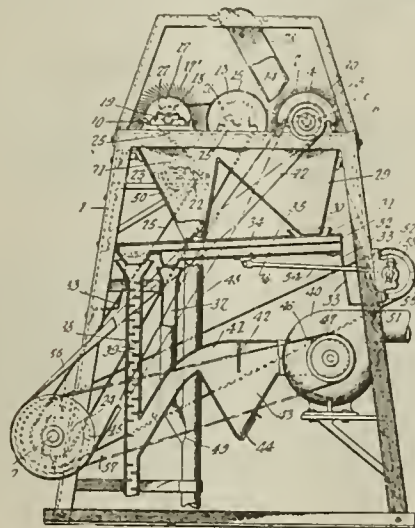


ning than the first closing movement of the adjacent door, said doors reciprocating in their movement, for the purpose set forth and described.

Bearing Date of July 14, 1925

Grain separator.—Joseph H. Heishman, Clarendon, Va. Filed January 27, 1923. No. 1,546,132. See cut.

Claim: A grain separator including a rotatable piercing roller having inclined piercing fingers extending from the periphery thereof, a pressure roller



co-operating with the piercing roller and rotatable at a different speed than the piercing roller so as to cause components of the pressure roller to exert a stress towards the piercing roller in the direction of the length of the co-operating piercing fingers.

Bearing Date of August 11, 1925

Wheat heater.—Kennedy Dougan, Minneapolis, Minn.; Minneapolis Trust Company, Minneapolis, Minn., executor of the said Kennedy Dougan, deceased. Filed January 27, 1923. No. 1,549,655.

Automatic grain weigher.—Arthur C. Van Houweling, Pella, Iowa, assignor to Garden City Feeder Company, Pella, Iowa. Filed April 11, 1922. No. 1,549,395.

Bearing Date of August 18, 1925

Dust separator.—Anders Jordahl, New York, N. Y. Filed March 6, 1923. No. 1,550,366.

Bearing Date of August 25, 1925

Grain treating machine.—Roy M. Anderson and Harry Y. Anderson, Walla Walla, Wash. Filed April 9, 1923. No. 1,550,656.

Claim: In a grain treating machine, the combination with feeder means, of a frame, means attached to the legs of said frame to adjust its inclination, a cylindrical casing fixed to said frame, a cylindrical drum rotably mounted in said casing, paddles carried by said drum, a discharge spout attached to said casing and positioned to receive the treated grain from said drum, a screening means attached to said spout, and means to rotate said drum.

Bearing Date of September 1, 1925

Method and apparatus for treating grain.—Leo Rietschek, Grinnell, Kan. Filed April 2, 1924. No. 1,552,233.

Claim: In an apparatus for treating grain, a container for the grain, a fluid conducting unit comprising a plurality of pipes of equal lengths arranged in substantially the same horizontal plane and in spaced parallelism, said pipes resting directly upon the bottom of the container and the opposite ends of the pipes extending through and beyond the adjacent walls of said container to dispose said ends upon the exterior of the container, said extended ends being screw-threaded and portions of the pipes within said container being equipped with a multiplicity of longitudinally and circumferentially spaced apertures through which a grain treating fluid is simultaneously omitted, the spaced positioning of the pipes across the bottom of the container serving to uniformly distribute the treating fluid, couplings connected to the extended ends of the pipes at one side of the container, a fluid supply conduit connected with the couplings for connecting said pipes in assembled relation, and screwcaps removably fitted upon the opposite screw-threaded ends of the pipes, said screw caps being removable from the exterior of the container to permit cleaning of the interiors of the pipes, or to permit said pipes to be slid through the openings in the container without disassembling said unit.

Grain trimming device.—James D. Shipton, Vancouver, B. C., Canada. Filed February 29, 1924. No. 1,551,971.

Claim: A means for accelerating the flow of grain as delivered by gravity into the hold of a ship and for diverting the direction of its movement, said means comprising a cylindrical casing having an outlet duct in an approximately horizontal plane with a delivery spout lying approximately tangential to the casing, a rotatable body of conical form with the small end up mounted within said casing, said body having annular ball races and said casing having annular ball recesses in its bottom and bearing balls in said recess, said casing having a top closure plate with a bearing, said rotatable body having a shaft portion journaled in said bearing, said closure plate having an inlet opening adjacent to its periphery for depositing the grain on the outer zone of the rotatable body only and having provision to direct its flow toward the direction of rotation, said outlet being slightly in advance of the inlet, said

rotatable body having radial faces on its outer surface, said casing having a bearing in its bottom and said rotatable body having a shaft portion projected through said last named bearing and power means coupled with said last named shaft portion for turning said rotatable body substantially as shown and described.

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Mixture	Bags Cement	Cu. Ft. Sand	Cu. Yd. Gravel
1:1 1/2:3	7.6	.42	.84
1:2:3	7	.52	.78
1:2:4	6	.44	.89
1:2 1/2:4	5.6	.52	.83
1:2 1/2:5	5	.46	.92
1:3:5	4.6	.51	.85

One sack of cement is equal to one cubic foot, and four sacks are a barrel. In making a 1:2 mixture of cement mortar 100 square feet will require eight sacks of cement and 15.8 cubic feet of sand if 2 inches thick. When the thickness is 1 1/2 inches, 6 sacks will be required and 11.6 cubic feet of sand; when 1 inch thick, 4 sacks and 7.9 cubic feet; 3/4 inch, 3 sacks and 5.8 cubic feet; and 1/2 inch, 2 sacks and 3.9 cubic feet.

If a 1:3 mixture is desired, thickness of 1 inch requires 3.1 sacks of cement and 9.2 cubic feet of sand; 1/2 inch thickness, 1.5 sacks and 4.6 cubic feet; and 1/4 inch thickness, 0.8 sacks and 2.3 cubic feet, for 100 square feet of cement mortar.

THE exports of grain from Argentina for the period from January 1 to July 23, 1925, as compared with the same period last year, were as follows, in bushels: Wheat, 34,061,000 and 132,631,000; corn, 53,268,000 and 85,236,000; oats, 24,011,000 and 28,621,000; and linseed, 21,315,000 and 39,734,000.

THOUGH no official estimate is yet available for the total acreage of Australia, information from private sources indicates an acreage as large as that of 1924-25, with probably slight increases in some sections. Last year the harvested area was estimated at 10,755,000 acres, which was considerably above that of any preceding year with the exception of the war years 1915-16 and 1916-17.

THE Roumanian government has estimated that there will be at least 22,000,000 bushels of wheat available for shipment abroad, according to Commercial Attache Van Normal, Bucharest. The Council of Ministers has decided to reduce the export tax on wheat from \$225 to \$150 per carload (10 tons), while the export tax on other cereals, it is said, will continue for the present at \$100 per carload.

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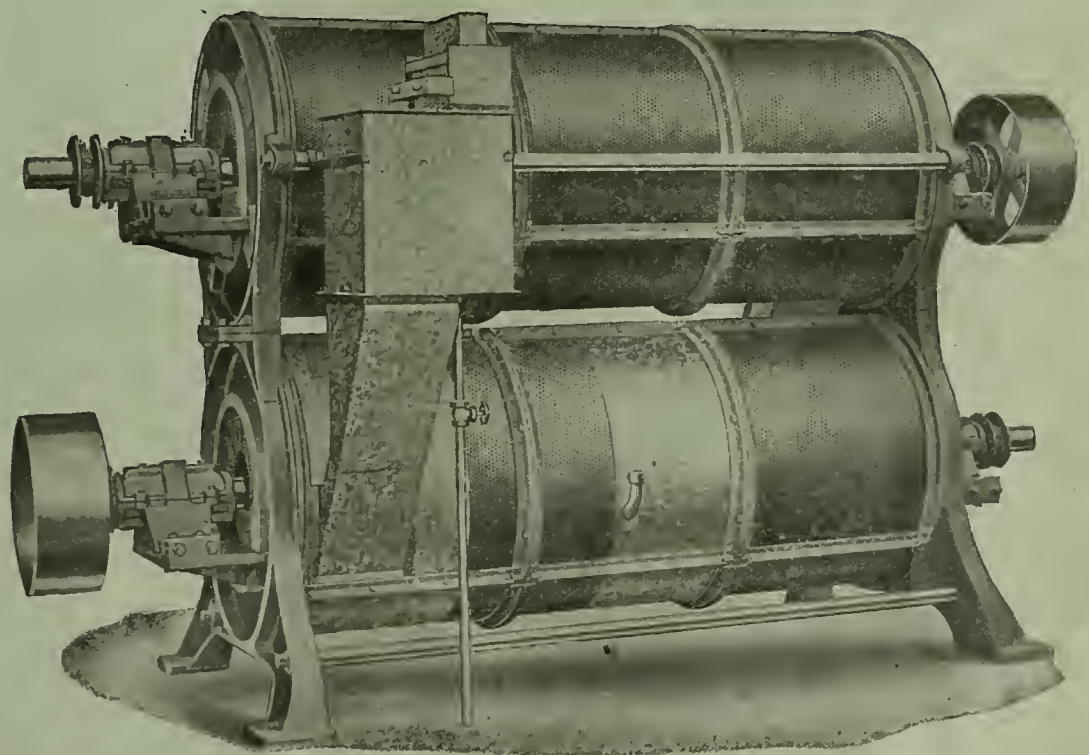
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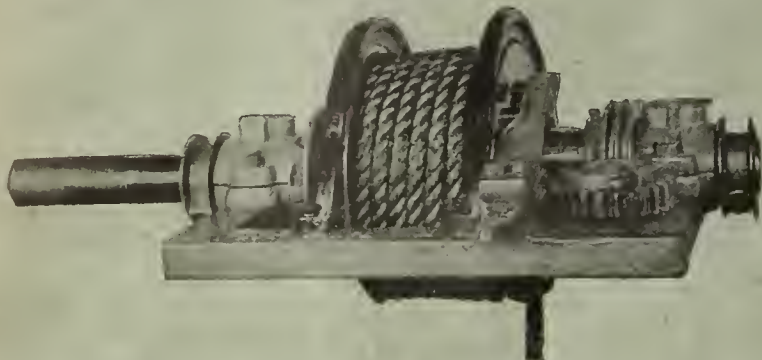
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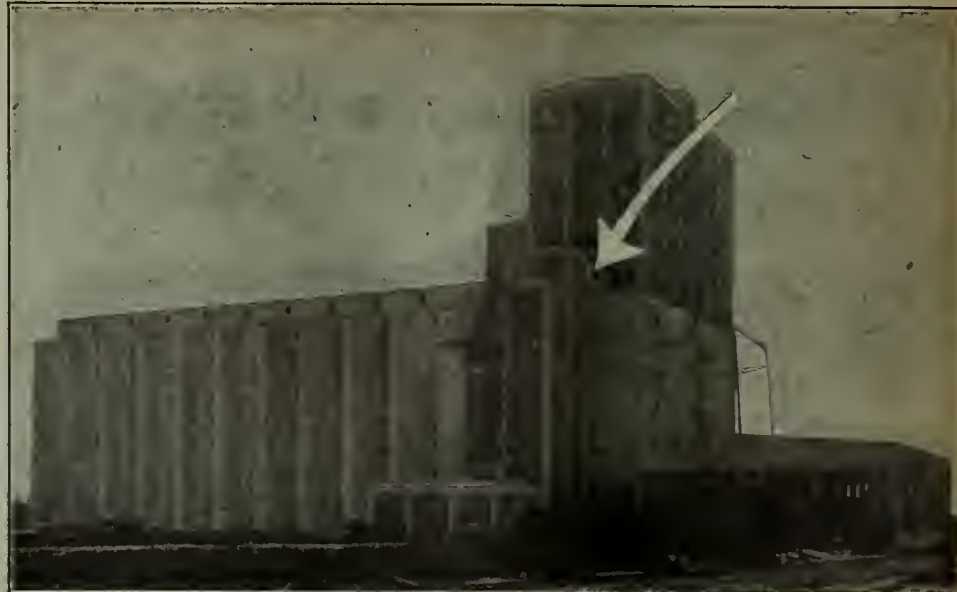
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